AUGUST 16, 1954

Hiring the Right Way . . . p. 28

RAILWAY AGE

The Standard Railroad WEEKLY Since 1856

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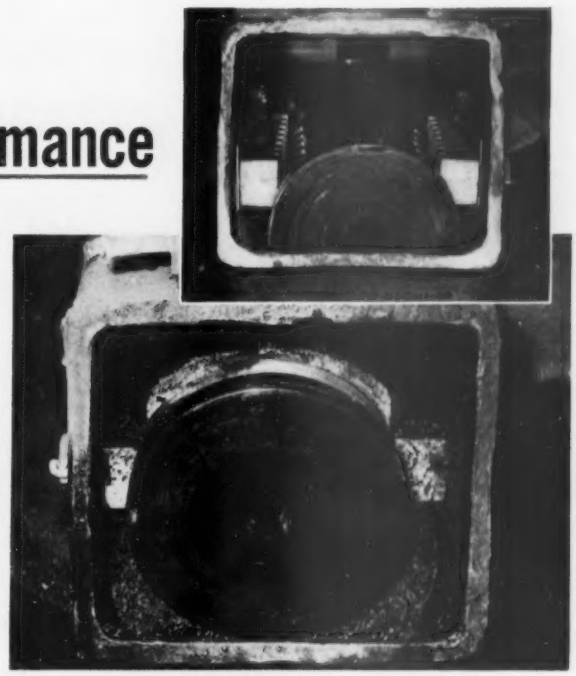
Here's why Magnus R-S JOURNAL STOPS give you Better Freight Car Performance

Big improvement due to elimination of waste grabs, better journal lubrication, longer bearing life, reduced car servicing and maintenance requirements.



Journal box with R-S Journal Stops after flat switching impact at 11½ mph. Packing is still in proper position. Compare with photos below. Inset shows mounting of R-S Journal Stops with box jacked and packing, bearing and wedge removed.

PREVENT excessive axle displacement in freight car journal boxes and you lick the major source of bearing troubles. That's exactly what you do with Magnus R-S Journal Stops and here is how they help.

No over-run lining, no displaced packing, no crushed dust guard. You get better lubrication—not only because the packing is held where it belongs, but also because the box does not rise to compress packing during braking or impacts. That helps maintain journal-packing pressures — provides a constant feed of oil to the bearing. And because the bearing cannot be cocked off the journal, you won't trap any loose strands under the bearing crown. Oilers can service cars faster, too.

You can also get real benefits if you use R-S Journal Stops with pad or mechanical lubricators — or packing "containers." Bearings last much longer regardless of lubricating method — don't get the concentrated uneven loading that spreads linings, disrupts oil films. After two years' service, bearings originally applied with test sets of R-S Journal Stops were found to have crown bearing only 2½" to 3" wide — practically identical to conditions found at inspection after six months' operation. Dust guards were undamaged, and there was *only slight wear on the Stops.*

This CAN'T HAPPEN when you use R-S Journal Stops

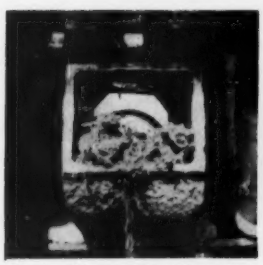
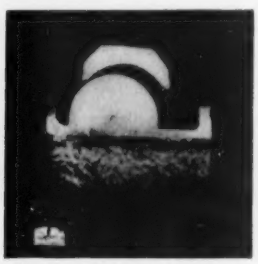


Photo of journal box at impact of 6 mph, showing how bearing is cocked off journal and packing is displaced.



When air and hand brakes are both applied, note how bearing and entire box are raised, compressing packing.

Now Available for Separable Boxes

New designs permit application of R-S Journal Stops to separable boxes as well as integral-cast boxes — with the same big improvement potential. For complete details write to Magnus Metal Corporation, 111 Broadway, New York 6, N. Y.; or 80 E. Jackson Boulevard, Chicago 4.

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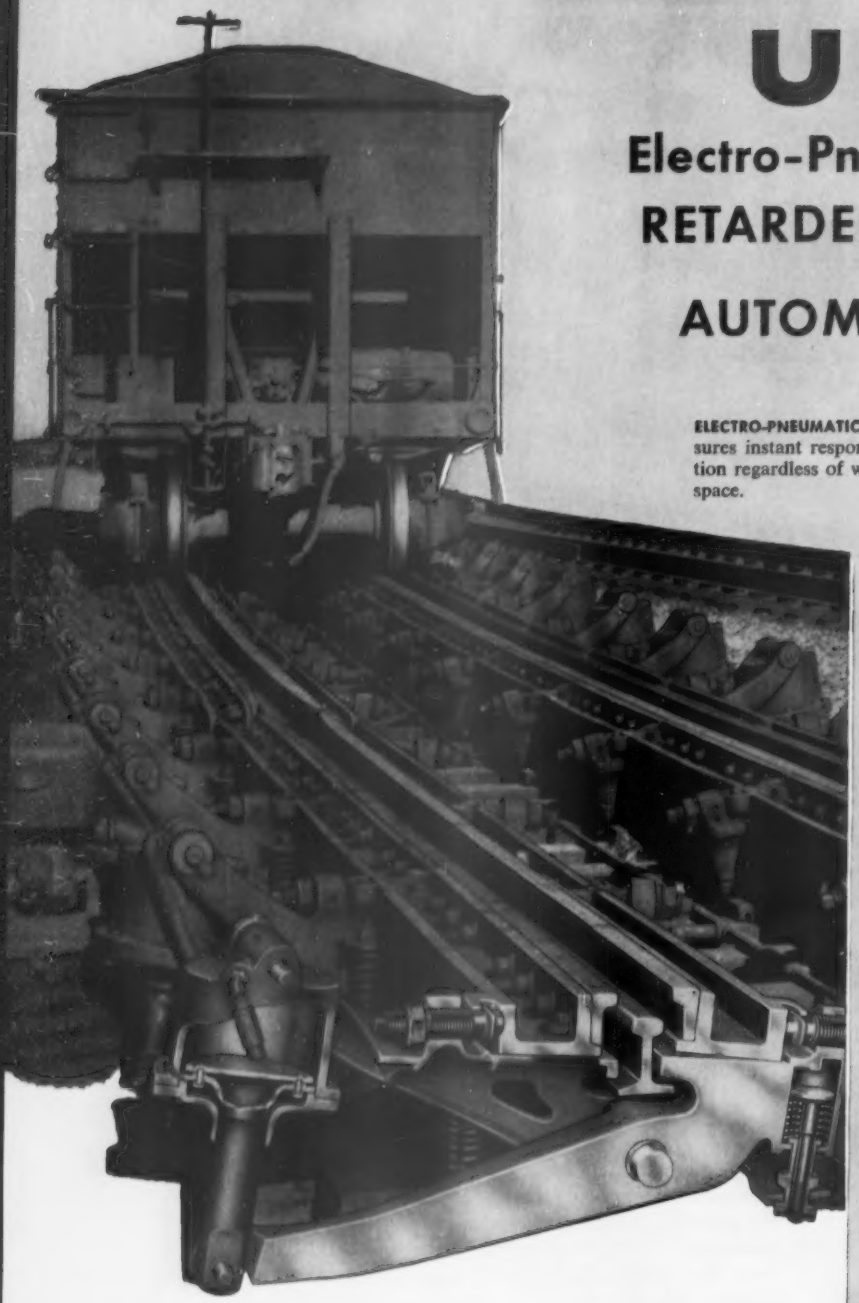
Speed freight-car classification, reduce damage claims with

UNION

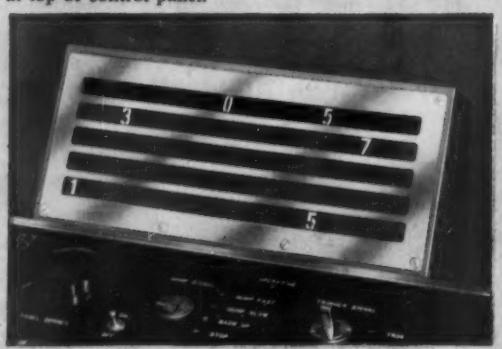
Electro-Pneumatic RETARDERS, RETARDER SPEED CONTROL AND AUTOMATIC SWITCHING



ELECTRO-PNEUMATIC OPERATION of UNION Retarder assures instant response to controls and uniform retardation regardless of wheel widths. Unit construction saves space.

PRESSING ONE PUSHBUTTON on the UNION control panel automatically positions switches as cut of cars proceeds to designated track.

ADVANCE SELECTION of routes for as many as five cuts can be made. Selected routes are registered on indicator at top of control panel.



DESIRED SPEED for each cut leaving a retarder is selected by simply operating one of six levers to "Light" car or "Heavy" car position. Retarder operates automatically to reduce speed of cut to that selected.

You can substantially reduce car handling time and damage claims in your classification yards with UNION Retarders combined with Retarder Speed Control and Automatic Switching. Faster classification results in quicker train departures and earlier deliveries to industries and connecting railroads.

From one control panel in a strategically located tower one operator not only can handle all classification switching, but also can accurately adjust car speed for proper coupling. This materially reduces wear and tear on cars and possible damage to lading.

Write for complete information.

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August 16, 1954 **Vol. 137, No. 7**

Week at a Glance

Railroad views on legal aspects of piggybacking were generally upheld by the ICC in its report on the 12 "basic questions" on which it heard oral argument late in June. Most important is its finding that transportation of freight in trailers on flat cars is transportation by rail—not by highway. 7

Longest wholly new common carrier rail line to be built in this country in some years will be the Gulf, Colorado & Santa Fe's new entrance to Dallas, Tex., just authorized by the ICC. 10

"Abide by the National Transportation Policy," a Senate committee has told government agencies. "Don't," the committee said in effect, "oppose necessary general rate increases—and don't 'chisel' on rates." 13

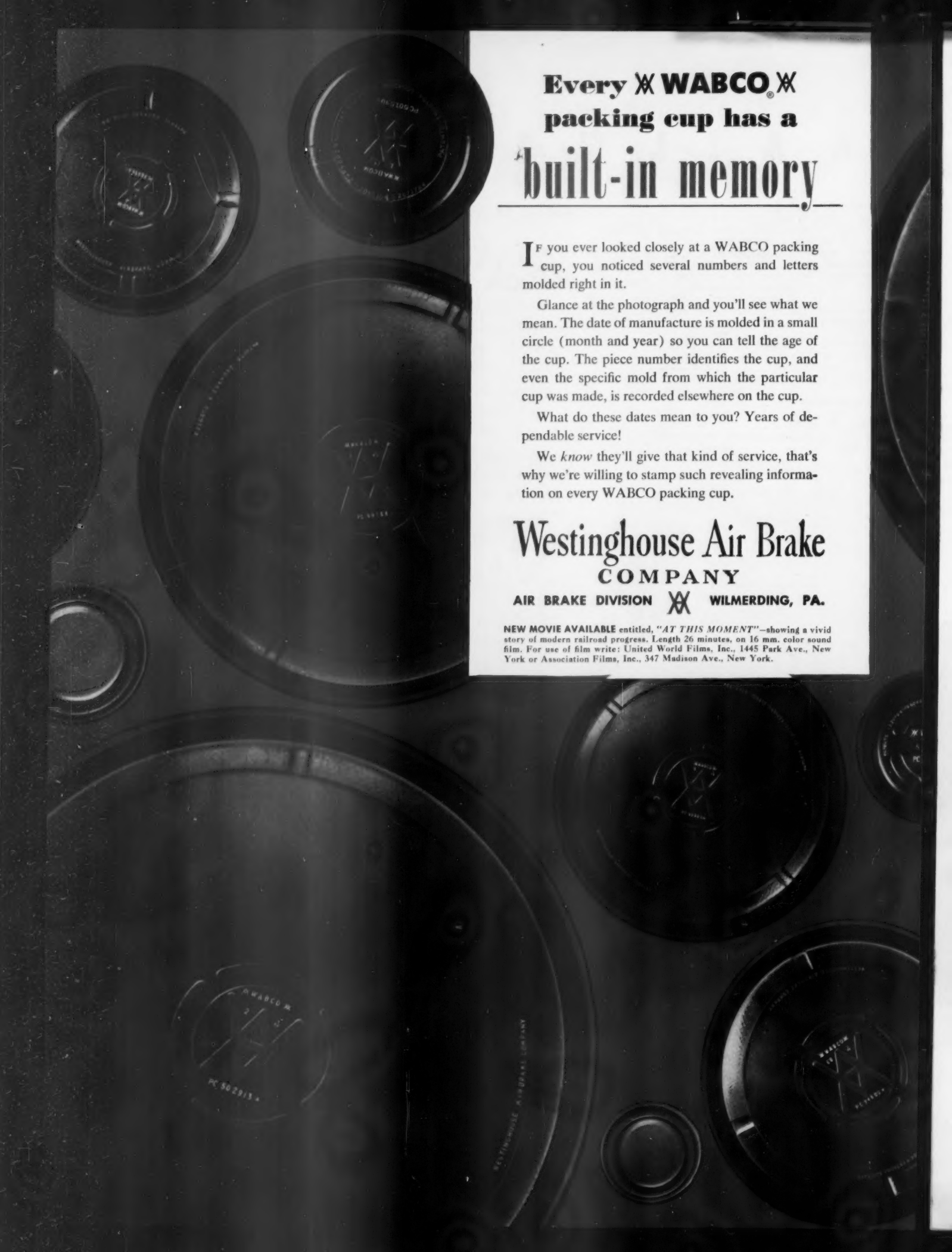
FORUM: Just what specific changes in regulation are necessary? Professor Ernest Williams, of Columbia, has made some interesting suggestions. 19

Per diem and demurrage—a reader disagrees with our earlier assertion that there need be no fixed relationship between them. 20

High-speed movements between single and double track are made possible by No. 24 equilateral turnouts installed by the Erie as part of a track-reduction project. 21

Bad-order cars go through on schedule in an efficient repair-track setup installed by the Central of Georgia. 24

The SP's new dome car, which embodies some new dimensions and some novel ideas, got its first tryout from the employees who built it. 26



Every WABCO packing cup has a built-in memory

IF you ever looked closely at a WABCO packing cup, you noticed several numbers and letters molded right in it.

Glance at the photograph and you'll see what we mean. The date of manufacture is molded in a small circle (month and year) so you can tell the age of the cup. The piece number identifies the cup, and even the specific mold from which the particular cup was made, is recorded elsewhere on the cup.

What do these dates mean to you? Years of dependable service!

We *know* they'll give that kind of service, that's why we're willing to stamp such revealing information on every WABCO packing cup.

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NEW MOVIE AVAILABLE entitled, *"AT THIS MOMENT"*—showing a vivid story of modern railroad progress. Length 26 minutes, on 16 mm. color sound film. For use of film write: United World Films, Inc., 1445 Park Ave., New York or Association Films, Inc., 347 Madison Ave., New York.

Current Statistics

Operating revenues, six months	
1954	$ 4,609,299,381
1953	5,327,263,239
Operating expenses, six months	
1954	$ 3,697,687,869
1953	4,022,941,871
Taxes, six months	
1954	$ 441,829,475
1953	642,493,641
Net railway operating income, six months	
1954	$ 345,222,857
1953	548,668,653
Net income, estimated, six months	
1954	$ 224,000,000
1953	418,000,000
Average price railroad stocks	
August 10, 1954	70.37
August 11, 1953	64.29
Carloadings, revenue freight	
Thirty-one weeks, 1954	19,611,603
Thirty-one weeks, 1953	22,684,326
Average daily freight car surplus	
Week ended August 7, 1954	84,439
Week ended August 8, 1953	23,771
Average daily freight car shortage	
Week ended August 7, 1954	411
Week ended August 8, 1953	2,010
Freight cars delivered	
June 1954	2,650
June 1953	6,463
Freight cars on order	
July 1, 1954	13,860
July 1, 1953	52,315
Freight cars held for repairs	
July 1, 1954	120,104
July 1, 1953	95,768
Average number of railroad employees	
Mid-June 1954	1,073,847
Mid-June 1953	1,229,169

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Week at a Glance CONTINUED

Hiring the right way is the objective of the Illinois Central's Standardized Employment Procedure. 28

BRIEFS

A strike has been authorized by Canadian "non-ops" to enforce their demands for fringe benefits estimated to cost the railroads about $60 million per year. No date has been set, however, and the Dominion government is attempting to bring the companies and unions together to effect a settlement. The government also has announced that it will, if necessary, call a special session of Parliament, similar to the one convened when the "non-ops" quit work for nine days in 1950.

Another new railroad line has been proposed for Canada by the Kaiser industrial interests. It would run from the vicinity of Quebec City to James Bay, 350 to 400 miles; would cost $25 million or more; and would assertedly open up pulp and paper producing forest areas and possibly new mineral areas as well.

Is this a record? — The Louisville & Nashville reports its 1,000th employee to have completed 50 years of service. He is William Davis, night chief dispatcher at Union Station, Louisville. President John E. Tilford has presented him with a gold watch.

"A taxpayer is one who doesn't have to pass a civil service exam to work for the government." That's a definition developed by the Citizens Public Expenditure Survey of New York, after one of its studies indicated that "an 'average man' with an income of $4,500 works one day in every three for tax money only."

Nearly sixty miles of continuous welded rail will be in service on its main line before the end of the summer, the Northern Pacific reports. This would put the NP pretty close to the country's leading continuous welded rail user—the Elgin, Joliet & Eastern, which, at last report, had approximately 90 miles of such rail in main line service.

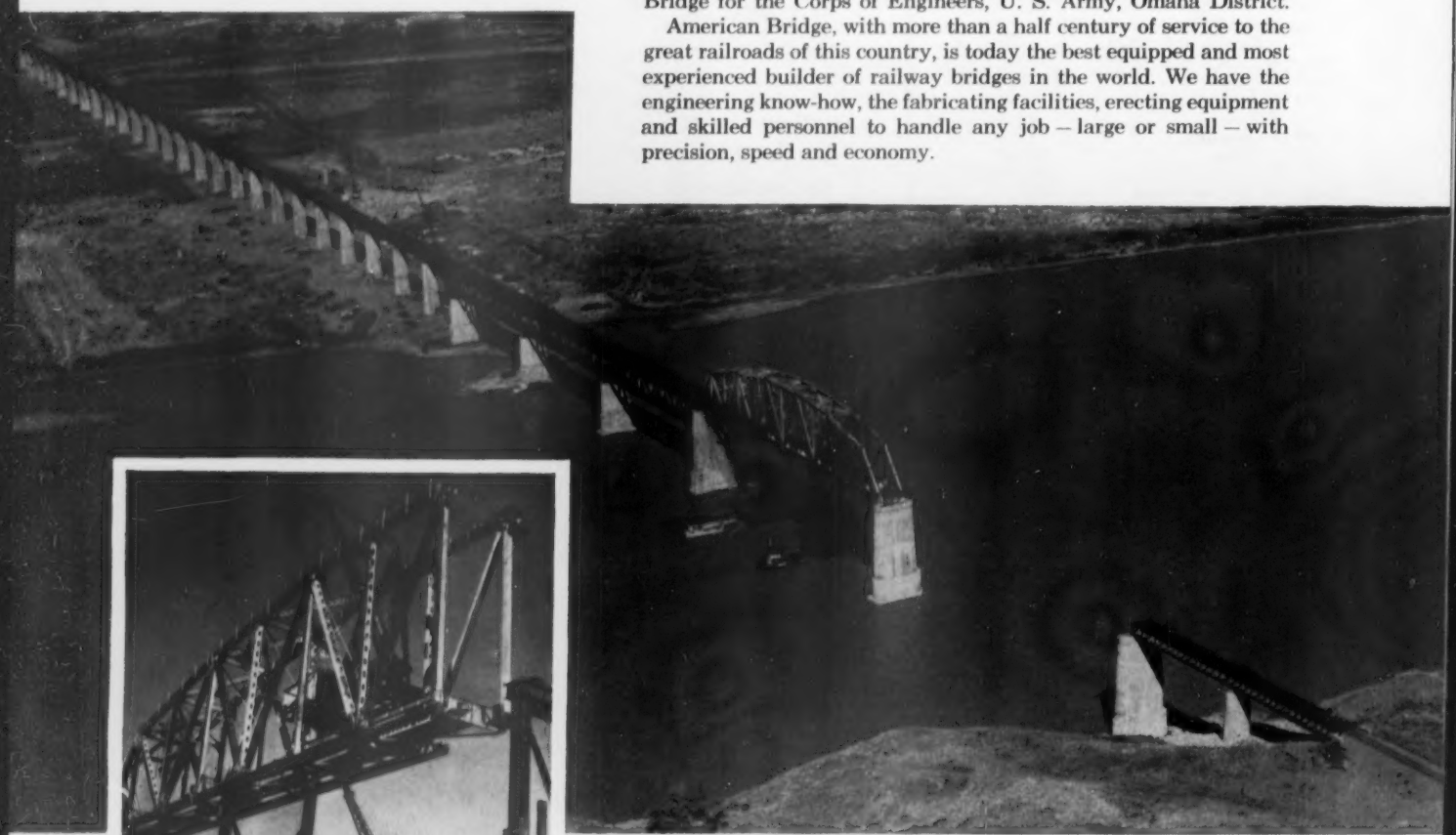
American Bridge builds 4,890-ft. bridge on CHICAGO MILWAUKEE ST. PAUL AND PACIFIC relocation project

New bridge over Missouri River has two 372-ft. through-truss spans.

THIS single track bridge over the Missouri River near Chamberlain, South Dakota, is part of the relocation of the C.M. St. P.&P. tracks made necessary by the construction of the Fort Randall Dam and Reservoir. It replaces the old bridge about 9,000-ft. upstream.

The 4,890-ft. structure features two 372-ft. through-truss spans over the main channel which provide a 42-ft. clearance above normal pool. The long bridge also has three 240′ deck truss spans, twenty-five 120′ deck plate girder spans, and four 98′ deck plate girder spans. Approximately 6,200 tons of structural steel went into the bridge, all of which was fabricated and erected by American Bridge for the Corps of Engineers, U. S. Army, Omaha District.

American Bridge, with more than a half century of service to the great railroads of this country, is today the best equipped and most experienced builder of railway bridges in the world. We have the engineering know-how, the fabricating facilities, erecting equipment and skilled personnel to handle any job — large or small — with precision, speed and economy.



Plans and specifications by Corps of Engineers, U. S. Army.
Fabricated and Erected by American Bridge.
Work performed under the direction of W. G. Powrie, Chief Engineer, C. M. St. P. & P. Railroad.

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UNITED STATES STEEL

Railroads Upheld on Piggybacking

ICC goes along with them on important legal questions raised by t-o-f-c operations

Railroad positions on the important legal questions raised by piggybacking operations have been upheld by the Interstate Commerce Commission.

The determinations were embodied in a report in the No. 31375 proceeding which the commission instituted to deal with 12 "basic and fundamental questions" posed by the trailer-on-flat-car operations. The proceeding was instituted after the New Haven had applied for answers to a like set of questions; and the commission heard oral arguments on the matter in June (*Railway Age*, July 5, page 11).

Basic Question—As to the first and basic question, the commission held that transportation of freight in trailers on railroad flat cars is transported by railroad, for which a motor carrier certificate is not required. American Trucking Associations and its Regular Common Carrier Conference contended that it was motor transportation, which could be performed only by holders of common-carrier trucking certificates.

In making this determination, the commission held that a railroad is free to transport its own freight (i.e., freight tendered to it by shippers for movement by railroad bills of lading and at railroad rates) in its own trailers on flat cars.

Pick-up and Delivery—As to motor operations of piggyback trailers in terminal pick-up and delivery services, the commission held that they are subject to regulation under the act's Part I and thus exempt from regulation as motor-carrier services under Part II.

Question No. 3 asked if a railroad could transport, in piggyback operations, the trailers of private carriers and of contract truckers. As to private carriers the commission gave an affirmative answer, noting that such carriers are shippers.

As to contract carriers, it held that they may not utilize t-o-f-c services to obtain transportation over routes covered by their permits. They may, however, act as agents for shippers in arranging for t-o-f-c service beyond limits of their permits. Here the commission explained, by way of example, that a contract carrier with a permit covering operations from Portsmouth, N.H., to New York, via Boston, Mass., could not lawfully divert its vehicle at Boston to piggyback service between that point and New York; but it could, as agent for the shipper, arrange at New York for transportation of the loaded trailer by railroad flat car from that point to Philadelphia, Pa.

The commission did not suggest that railroads were required to police operations of contract truckers, but it did have this to say: "Where the railroad has knowledge that a trailer tendered to it for transportation is being operated in contract-carrier service subject to Part II, it should not thus knowingly join with the contract carrier in perpetrating a violation of the law."

As to the common-carrier trucker, the commission held that its role in piggybacking must be that of a connecting carrier to the railroad involved. Thus, trailers of common-carrier truckers must not be transported in t-o-f-c operations under so-called "open" tariffs. They can only be carried under arrangements involving rail-motor joint rates and through routes.

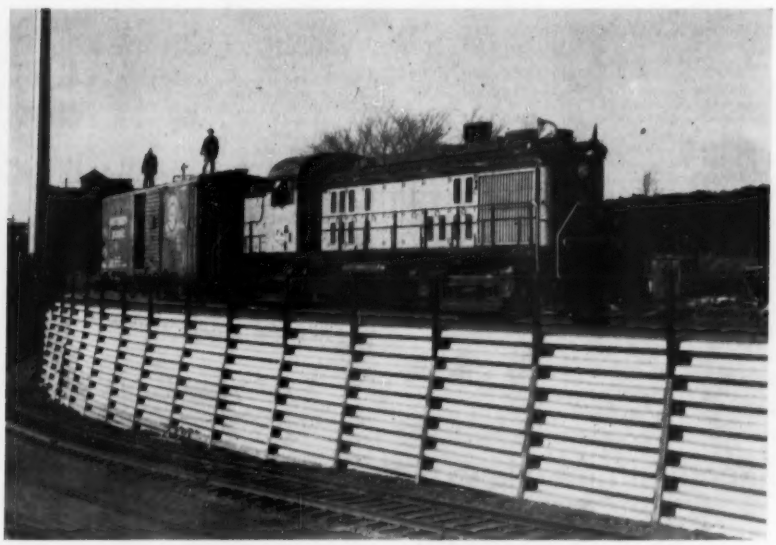
And railroads are free to enter joint-rate and through route arrangements with some common-carrier truckers and not others. This is because the act's provisions authorizing such arrangements are "not mandatory, but merely permissive."

Role of Forwarders—These determinations with respect to common-carrier truckers disposed of questions 4 to 7, inclusive. The commission then gave an affirmative answer to Question 8, which asked if a railroad might transport loaded trailers tendered by forwarders. Here the forwarders were found to be in roles of shippers, eligible to use the railroads' "open" t-o-f-c tariffs.

Question 9 asked if railroads might enter through-route and joint-rate arrangements covering transportation of forwarders' trailers in t-o-f-c operations. The commission said "No." It noted that it is unlawful for forwarders to participate in joint rates of any kind.

No Scope Rule Yet—The commission left unanswered the question of whether a railroad engaged in performing t-o-f-c operations under joint-rate arrangements with common-carrier truckers could refuse to publish tariffs offering the service to private truckers and forwarders. "It is not feasible to give a definite answer except in a concrete case where all the relevant facts are known," the report said.

Meanwhile, the commission did suggest that unjust discrimination or undue preference would not be involved because the common-carrier trucker would not be in the role of shipper;



A METAL RETAINING WALL separates a two-level, parallel-track installation serving an addition to the Wausau Paper Mills plant near Wausau, Wis. The wall consists of 290 ft of Armco metal bin-wall sections which were installed, instead of concrete, because of unstable soil conditions with frost-boil characteristics. The lower track serves the ground floor of the plant while the upper serves the second floor. The installation was complicated by having to build the tracks on a 14-deg. curve.

and the prohibitions against such practices apply "only to those who stand, as to the railroads, in the relation of shippers." The report then went on to point out that section 1 (4), which makes it a railroad's duty to furnish transportation on reasonable request therefore, might well become applicable.

Might Not Be Limitable—"An illustration," the report continued, "may be helpful in the development of a constructive approach to this matter. The New York Central proposes to establish trailer-on-flat-car service between New York, Chicago, and certain other points, restricted to common-carrier trailers. The trailers are to move in solid trains and at speeds approximating passenger-train schedules, much faster than normal freight service. In view of the fact that daily trailer-on-flat-car transportation between these points is to be conducted, it is doubtful that all shipper requests for such service could be regarded as unreasonable.

"As an operating matter, the physical performance of the service (assuming it then to be a going operation) will have been demonstrated to be feasible and practicable. It might not then be reasonable to say, unqualifiedly, that motor common-carrier trailers could physically be accommodated but private-carrier trailers could not."

If a railroad makes t-o-f-c service available to private truckers, it must extend such service to trailers of forwarders, the commission said in answer to Question 11. Because it lacked a factual record of an actual situation, the commission did not undertake to answer Question 12, which asked: If a freight forwarder has a contract with a motor common carrier and if a trailer tendered to a railroad carries the identification of a motor common carrier, must the railroad providing trailer-on-flat-car service accept as compensation its division from the motor common carrier under the motor-rail joint rates rather than accept charges based on rates published in the railroad's tariff?

In disposing of the question with respect to motor operations of piggyback trailers in terminal pick-up and delivery services, the commission referred to the position of Brooklyn terminals, which contend that the railroads lack authority to serve Brooklyn as part of a terminal area for piggyback operations based on stations in New Jersey. That matter, the commission said, was not pertinent to the present case, but it might be an appropriate matter for consideration in the other piggybacking case—the investigation of t-o-f-c tariffs published by eastern railroads (*Railway Age*, August 9, p.14, and August 2, p.6)

TWELVE MORE STEAM LOCOMOTIVES, making a total of 21, have been donated to the Republic of Korea by the Chesapeake & Ohio. The latest group are all 0-8-0 switchers, built in 1930; earlier donations included six switchers and three Consolidation-type freight locomotives, all given through the Greater Cleveland Campaign Committee of the American-Korean Foundation. This picture shows one of the first nine being loaded aboard a naval transport at the C&O's docks at Newport News, Va., for shipment to Korea.

Safety

April and May Accidents

The Interstate Commerce Commission has made public its Bureau of Transport Economics and Statistics' preliminary summaries of "steam" railway accidents for April and May, and cumulative summaries to the ends of those months. The compilations, which are subject to revision, follow:

Item	Month of April 1954	Month of April 1953	4 mos. ended with April 1954	4 mos. ended with April 1953
Number of train accidents*	584	691	2,513	2,923
Number of accidents resulting in casualties	42	42	171	190
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	84	85	223	253
Injured	74	77	238	258
Passengers on trains:				
(a) In train accidents*				
Killed	—	1	—	19
Injured	39	84	63	233
(b) In train-service accidents				
Killed	—	—	2	4
Injured	147	133	553	566
Travelers not on trains:				
Killed	—	—	2	1
Injured	83	79	284	297
Employees on duty:				
Killed	13	23	70	90
Injured	1,207	1,570	5,190	6,283
All other nontrespassers:**				
Killed	83	130	464	551
Injured	380	424	1,765	1,969
Total—All classes of persons:				
Killed	180	239	761	918
Injured	1,910	2,367	8,093	9,606

Item	Month of May 1954	Month of May 1953	5 mos. ended with May 1954	5 mos. ended with May 1953
Number of train accidents*	571	758	3,083	3,681
Number of accidents resulting in casualties	32	37	202	227
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed	81	103	298	356
Injured	90	81	328	339
Passengers on trains:				
(a) In train accidents*				
Killed	—	—	—	19
Injured	4	71	71	304
(b) In train-service accidents				
Killed	3	4	5	8
Injured	134	127	687	693
Travelers not on trains:				
Killed	—	3	2	4
Injured	70	52	356	349
Employees on duty:				
Killed	16	25	85	115
Injured	1,240	1,573	6,428	7,856
All other nontrespassers:**				
Killed	121	102	585	653
Injured	378	428	2,158	2,397
Total — All classes of persons:				
Killed	221	237	975	1,155
Injured	1,916	2,332	10,028	11,938

*Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused damage of $350 or more to railway property in 1953. Beginning January 1, 1954, the minimum will remain at $350. Only a minor part of the total accidents result in casualties to persons, as noted above.

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	72	119	445	524
Injured	228	284	1,224	1,383

**Casualties to "Other nontrespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrespassers, were as follows:

Persons:				
Killed	104	94	548	618
Injured	269	265	1,502	1,648

People in the News

Nomination of Locomotive Inspection Chief Withdrawn

President Eisenhower has withdrawn from the Senate his nomination of Charles H. Grossman for permanent appointment as director of locomotive inspection, Interstate Commerce Commission.

Mr. Grossman had been serving in the position since September 1953, first under a recess appointment and then under the withdrawn nomination which was submitted to the Senate last February (*Railway Age*, February 22,

page 12). Mr. Grossman has returned to his former position as district inspector at Albuquerque, N. M., and the Washington office is in charge of the assistant director, James E. Friend.

Part of ICC Revamp—It is understood that President Eisenhower withdrew the Grossman nomination to go along with the commission's reorganization plans which are predicated in part on proposed amendments to the Locomotive Inspection Act. The proposed amendments are embodied in Senate Bill 3059, and they would eliminate provisions under which the director and assistant directors of locomotive inspection are appointed by the President. The Senate Committee on Interstate and Foreign Commerce held hearings on the bill but has taken no further action (*Railway Age* May 24, page 12).

In announcing a reorganization step which merged its former Bureau of Locomotive Inspection into the new Bureau of Safety and Service, the commission said some of the efficiency and economy hoped for would depend upon favorable Congressional action on S. 3059 (*Railway Age*, March 29, page 6).

Winchell Assigned To ICC's Division 3

John H. Winchell, newest member of the Interstate Commerce Commission (*Railway Age*, August 2, page 10), will serve as a member of Division 3, the rates, service and safety division. Other members of the division are Commissioners Anthony F. Arpaia, chairman, and Owen Clarke.

Dearing Leaves Commerce Transportation Position

Charles L. Dearing has resigned as Deputy Under Secretary of Commerce for Transportation, effective August 25, to return to a post with the Brookings Institution.

Mr. Dearing joined the Commerce Department in August 1953, on a year's leave from Brookings, after serving for several months as consultant to Under Secretary Robert B. Murray, Jr. He has been with Brookings since 1927.

Siedle Nominated for Postal Transport Job

E. George Siedle, general traffic manager of the Armstrong Cork Company, has been nominated by President Eisenhower as assistant postmaster general, Bureau of Transportation. The nomination went to the Senate August 5.

Scheduled to take office September 1, Mr. Siedle would succeed John C. Allen, who resigned August 1 (*Railway Age*, July 26, page 9).

Mr. Siedle organized the traffic department of Armstrong Cork, heading it for the past 37 years. He was born in Chicago and attended Duquesne University, later working for 10 years in the traffic departments of railroads in Pittsburgh.

He is president of the Associated Traffic Clubs of America and a member of the National Industrial Traffic League and of its board of governors.

ICC Appoints Spicer Legislative Attorney

The Interstate Commerce Commission has named Hyram H. Spicer, 3rd, to be legislative attorney in the office of the chairman. Formerly an examiner in the Bureau of Finance, he succeeds Walter J. Myskowski, who resigned July 31. A native of Baltimore, Mr. Spicer has been with the commission since 1948.

Organizations

Budd Sees Government Favoring All but Rails

Government policy today "seems to be to favor all types of transportation except railroads," John M. Budd, president of the Great Northern, said in a July 29 speech before the Northwest Shippers Advisory Board at Duluth.

The GN president said much of this partiality is carried out in the name of national defense. He cited the St. Lawrence Seaway as an example. "This project is either economically unsound because of the limitation in ships that can use it, or else it will have a serious effect on Eastern railroads with which it will compete," Mr. Budd declared.

Elsewhere in this picture, Mr. Budd continued, the federal government is urging an expenditure of $50 billion in the next 10 years on highways, in addition to the $4 billion a year now being spent. The Post Office Department, he added, is favoring airlines and truck lines in handling mail, at no saving when compared with movement by rail.

Commenting on the railroads' "inherent advantages," Mr. Budd said there is serious question as to whether a common carrier can exist in competition with other carriers who are given "artificial advantages." These artificial advantages, he said, have already caused a substantial portion of high-rated commodities to shift from rails to highways.

Drop in Ore Traffic—Earlier in his remarks, the GN president told the shipper board that the St. Lawrence Seaway may have a far-reaching effect on movement of iron ore from Minnesota.

Top-grade ore in the Mesabi Range is becoming harder to reach, and consequently costlier, Mr. Budd said. Lower-grade ore, on the other hand, must be beneficiated or otherwise processed, which also boosts cost. Partly because of this cost factor, foreign ores already are coming into this country, and development of the seaway may well speed up the process.

The board had previously arrived at a prediction that carloadings in the Northwest district in the third quarter this year will be 13% lower than last year. Almost all the decline was accounted for by an expected drop in loadings of iron ore.

Need for Teamwork—Board members also heard a railroad officer call for more coordination of freight schedules by rail carriers. E. E. Foulks, general superintendent transportation for the Rock Island, said railroads are not doing the job they should in this respect. "Unless we work together in coordinating our schedules for through service, and produce some improvements in this facet of railroading, we are not going to be able to hold the business we now have," Mr. Foulks declared.

The semiannual meeting of the **Associated Railway Track Contractors of America, Inc.,** will be held in Chicago September 13, in conjunction with the annual convention of the **Roadmasters & Maintenance of Way Association.** The ARTCA plans soon to issue a brochure, listing its member companies and their services.

Supply Trade

Lucian C. Sprague, former chairman and president of the Minneapolis & St. Louis, has been appointed a consulting engineer for the **Archer-Daniels-Midland Company.** Mr. Sprague will survey A-D-M's long-range transportation problems, and will serve as a consulting engineer with special interest in transportation problems.

Equipment & Supplies

FREIGHT CARS

Journal Repacking On 36-Month Basis

The Mechanical Division of the Association of American Railroads has issued a detailed list of journal box repacking dates for 50 Pennsylvania 70-ton hopper cars equipped with Plypak waste containers, and authorized extension of the repacking period to

36 months for the purposes of the test.

These cars were equipped with Plypak containers between July 1951 and January 1952; the new repacking dates range from July 1954 to January 1955.

As these cars were repacked by AAR member roads, it is requested that M. A. Pinney, engineer of tests, Pennsylvania, be notified of the car number, condition of the containers, packing, journal bearings and lubrication.

PASSENGER CARS

First of 20 New 'Domes' Placed in Service by NP

G. W. Rodine, passenger traffic manager of the Northern Pacific, has revealed that the first of that company's 20 new dome cars entered service August 16, on the transcontinental "North Coast Limited."

Final delivery of the 20 cars is expected sometime this fall. Four of them—two dome coaches and two dome sleepers—will be assigned to each of the NP's Chicago-West Coast trains.

The cars are being built by the Budd Company at a total cost of approximately $5,280,000.

Each of the new dome coaches will accommodate 46 passengers on the main level and 24 in the dome. The sleepers, in addition to 24 dome seats, will offer four roomettes, four double bedrooms and, under the dome, four single bedrooms.

LOCOMOTIVES

The **Union Pacific** has ordered 50 1,750-hp diesel freight units from the Electro-Motive Division of General Motors Corporation. Delivery f the units, which will cst $8,680,000, is to be completed in September.

New Facilities

PRR Dedicates Pier as First Labrador Ore Arrives

A double ceremony, held at Philadelphia August 5, marked formal dedication of the Pennsylvania's new $10-million ore pier at that port; and the first arrival, at any port, of a shipment of iron ore from the newly opened mines in Quebec and Labrador. The 20,000-ton ore shipment reached Philadelphia on the SS Hawaiian from Seven Islands, Que., to which point it had been moved from the mines over the newly completed 357-mile Quebec, North Shore & Labrador Railroad.

James M. Symes, president of the Pennsylvania, speaking at the pier's dedication, described it as "a mighty tool in the defense program of the free world." It was designed and built, he added, "under the economics of the free enterprise system it serves to defend. It is another example of the determination of the railroad industry to go forward with technological improvements financed with private capital, which is the very foundation upon which our free enterprise system was built and which must be continued if it is going to survive."

To Be Expanded—The pier, Mr. Symes also said, "will soon be further enlarged to take care of the anticipated increase in tonnage."

Other speakers included Pennsylvania Governor John S. Fine, who congratulated the railroad on its "initiative and vision"; and Philadelphia Mayor Joseph S. Clark, Jr., who predicted that, this year or next, imports through the port area of Philadelphia would exceed those arriving through New York. Included in his estimated 1955 total were eight million tons of Labrador iron ore.

The PRR's new ore pier was described in *Railway Age* March 15, page 45.

GC&SF to Build New 50-Mile Line in Texas

The ICC has authorized the Gulf, Colorado & Santa Fe to construct a 50.1-mile branch from its main line near Sanger, Tex., to a point on its Paris-Dallas line near Reinhardt. The road had applied for approval of a 48.5-mile line by-passing Denton, but the commission ordered that the branch be routed to serve that point.

The new line, to be completed by the end of 1955, will cut approximately 65 miles off the road's Gainesville-Dallas service.

Alabama State Docks.—A new cargo storage warehouse for import merchandise is under construction near the piers of Alabama State Docks. The warehouse, costing $350,000, is part of the agency's $500,000 expansion and modernization program. Other facilities to be constructed in the program include a $58,000 roundhouse expansion and modernization project for the Docks Terminal Railway.

Atlantic Coast Line-Southern.—The ICC has reported on separate applications of these lines to construct respective 5.5- and 4-mile extensions in Fulton County, Ga. (*Railway Age*, May 18, 1953, pages 183 and 187). Declaring that "duplicate lines" would "be an economic waste," Division 4 ordered the proceedings held open 90 days while the two roads develop a "plan for joint ownership and common or alternative operation of a single line of railroad."

Chicago & North Western.—Projects currently in progress include: Installation of automatic crossing gates, Norwood Park, Ill.—$52,665; installation of spectroscopic testing facilities in laboratory of engineer of tests, Chicago shops—$41,318; purchase of a 30-ton crane for Clinton, Iowa, locomotive shops—$49,318; replacement of low-pressure boilers, North Fond du Lac, Wis., with new high-pressure boilers—$50,730; construction of two additional storage tracks, Neenah—$67,910; extension of two tracks, North Green Bay, to permit receipt and make-up of longer trains—$102,132; construction of four additional switching tracks, Wausau—$68,835; construction of four new yard tracks, each about 4,000 ft long, to remove switching area from present site, Rapid City, N.D.—$185,575; conversion of former steam locomotive back shop, Chicago, into car repair shop—$76,935; construction of new suburban station, Edison Park, Ill.—$34,750; and construction of new yard office (by contractor), Sioux City, Iowa—$29,050.

Claremont & Concord.—*To Buy B&M Branch.*—This road has applied to the ICC for authority to purchase the 63.5-mile Boston & Maine line between Concord, N.H., and Claremont Junction, and to acquire trackage rights over four miles of track owned by the Claremont, a private carrier, at Claremont. The applicant, incorporated July 12, also has filed for authority to issue 500 shares of common stock at $100 per share to Samuel M. Pinsly of Boston, Mass. Half the proceeds will go for purchase of the B&M line and a rail motor car and trailer, and the balance will be used to meet organizing costs and provide working capital. Mr. Pinsly is president of the new corporation (*Railway Age*, July 12, page 66).

Illinois Terminal.—The ICC has authorized this road to extend existing industry track 1.1 miles to connect its main line with the Bi-State Development Agency at Granite City Harbor, Ill.

Louisiana & Arkansas.—This road has applied to the ICC for authority to build a 16.5-mile line from Fox, Tex., to a point south of Blanchard, where it will connect with the parent Kansas City Southern. The L&A also has applied for trackage rights over the KCS from this point 6 miles into the new Shreveport, La., yards. The road proposes, in an accompanying application, to abandon its own line from Fox to Waskom, 13.8 miles, and its trackage rights over the Illinois Central from Waskom to Shreveport, 19.5 miles.

New Haven.—The third unit of the New Haven's $5,000,000 warehouse-construction program in the Harlem River-Hell Gate-Oak Point area of the lower Bronx, N.Y., has been completed. The warehouse will be occupied by R. C. Williams & Co. on a long-term lease. A fourth warehouse, under construction in the Oak Point

(Continued on page 13)

WHEN SNOW FLIES...
Be Prepared With COMMONWEALTH
PILOT SNOW PLOWS

COMMONWEALTH One-Piece Pilot Snow Plows applied to diesel road locomotives have proved of great value in keeping rails clear of drifting snow without the costly repeated use of large snow plow equipment.

These rugged cast steel pilot plows can be easily applied, removed and reapplied. Also, as a permanent application, they help solve year round operating problems by serving as strong deflecting pilots which clear the way of objects, substantially reducing the possibility of accidents or derailments. They may be used without interference with normal coupling operations.

Act now to reduce your next winter's operating costs with **COMMONWEALTH** One-Piece Cast Steel Pilot Snow Plows.

Large numbers of **COMMONWEALTH** *pilot snow plows of special design have also been applied to Diesel switchers and road switchers.*

Commonwealth Pilot Snow Plow applied to Road Locomotive

Commonwealth Cast Steel Pilot Snow Plow

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Rolling Steel Doors

Manually, Mechanically, or Electrically Operated

In pier storage buildings, and warehouses of world ports, rolling steel doors play an important role in providing access and protection for off-loaded and on-loading cargoes. For this particular purpose, no other type of door so fully meets today's requirements . . . because, Rolling Steel Doors occupy no usable space either inside or outside the door opening . . . their vertical roll-up action permits cargoes to be stacked within a few inches of the door curtain on either side. And, there are no overhead tracks or other obstructions to interfere with crane handling adjacent to door openings. A Mahon electrically operated, quick-opening, quick-closing Rolling Steel Door will save valuable space and valuable time in any type of opening. In addition, Mahon Rolling Steel Doors are permanent—their all-metal construction assures a lifetime of trouble-free service and maximum protection against intrusion and fire. When you select a Rolling Steel Door, check specifications carefully . . . you will find extra-value features in Mahon doors—for instance, the galvanized steel material, from which the interlocking curtain slats are rolled, is chemically cleaned, phosphated, and treated with a chromic acid solution to provide paint bond, and the protective coating of synthetic enamel is baked on at 350° F. prior to roll-forming. You will find other quality materials and design features in Mahon doors that add up to a greater over-all dollar value. See Sweet's Files for complete information including Specifications, or write for Catalog G-54.

THE R. C. MAHON COMPANY

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Manufacturers of Rolling Steel Doors, Grilles, and Automatic Closing Underwriters' Labeled Rolling Steel Doors and Fire Shutters; Insulated Metal Walls and Wall Panels; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms.

ROLLING STEEL DOORS, SHUTTERS AND GRILLES TO MEET EVERY REQUIREMENT

Four of Thirty Mahon Rolling Steel Doors installed in the Napoleon Avenue Wharf Shed built by the Board of Harbor Commissioners, Port of New Orleans, Louisiana.

MAHON

(Continued from page 10)
yard at East 149th street, is expected to be completed in October.

Pennsylvania.—First step in a modernized system for more rapid handling of ticket sales and train reservations at Pennsylvania Station-30th Street, Philadelphia, was the August 1 installation of 17 automatic "Ticketeer" machines which print tickets from metal matrices similar to those used in addressing machines. An entirely new ticket sales and service bureau is being built on the north side of the waiting room. Pending completion of the new quarters, the automatic ticket machines will be used in the present ticket office.

Sacramento Northern.—A new 50-ft through girder bridge with concrete abutments will replace a trestle and two existing bridges on this road's line at Yuba City, Cal. Cost of the project is estimated at $45,295. Other projects planned or under construction include replacement of a timber trestle on the Woodland branch with 72-in corrugated iron pipe and fill ($27,625); installation of two power-operated switches and 702 ft of track at Sankey ($26,925), and installation of a 100-ton track scale, pit, scale house and scale track at West Sacramento ($12,671).

St. Paul Union Depot.—A contract has been awarded to the Standard Conveyor Company, North St. Paul, for installation of 200 ft of additional mail conveyor at a cost of $25,000. Work will be completed about October 1. The depot company also is well into the first year's portion of a five-year rail replacement program. The program, costing $530,000, calls for replacement of 90-lb rail and switch material with 115-lb rail and switch material. Yard changes will include substitution of 20 single turnouts for 16 double slip switches and 13 single turnouts.

Santa Fe-Southern Pacific.—To prepare the way for a grade crossing elimination and union station construction project, the city of Fresno has asked the ICC to issue a certificate that public convenience and necessity would permit abandonment by the Santa Fe of its main line into the city.

The city's application proposes that the Santa Fe be granted trackage rights over the Southern Pacific line and share passenger facilities with the road in a union station to be built at or near the site of the present Southern Pacific terminal.

The city would have the Santa Fe

SENATE COMMITTEE TELLS FEDERAL AGENCIES TO HEED TRANSPORT POLICY IN DEALING WITH CARRIERS

The Senate Committee on Appropriations has called upon agencies of the federal government to make their dealings with carriers conform to the National Transportation Policy as set out by Congress in the Transportation Act of 1940.

The call was embodied in the committee's report on an appropriation bill—Senate Report No. 2034, 83rd Congress, 2nd session. It read as follows:

"Testimony presented before the committee indicated that some confusion may exist as to the proper policies to be followed by executive agencies of the government in their relations to carriers and public utilities. There was not sufficient evidence presented at our recent hearings to make a fair appraisal of the extent of such confusion, but it is deemed appropriate to outline here certain basic propositions in the interest of assuring for the future an administration of existing statutes consistent with the congressional intent.

"The sound objective of our national transportation policy, as set forth in the declaration contained in the Transportation Act of 1940, is the development, the coordination, and the preservation of a national transportation system by water, highway and rail, as well as other means, adequate to meet the needs of the United States, of the postal service, and of the national defense. To achieve this ultimate, it was recognized in the declaration that is was necessary to foster economic conditions in transportation and among the several carriers, and to encourage the establishment and maintenance of reasonable charges for transportation services, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices. While the declaration of policy by its terms is directed primarily at the establishment of principles for the guidance of the Interstate Commerce Commission in the administration of the Interstate Commerce Act and in regulation of carriers subject to that act, other agencies and departments of the government are expected to carry out their respective functions in relation to these carriers in such a way as to be consistent with the objectives of the transportation policy.

"For instance, the Administrator of General Services is required by the Federal Property and Administrative Services Act to represent executive agencies before federal and state regulatory bodies in proceedings involving transportation and other public utility services to the extent that he determines that so doing is advantageous in terms of economy, efficiency, or service. The fact that one of the guiding standards is 'advantageous in terms of economy' would not require opposition to proposed general increases in rates of carriers or utilities simply because such increases would increase the cost of operations of certain government departments. Opposition for such a reason would constitute a misconception of duty, a narrowness of outlook, and a misconstruction of the intent of Congress.

"Efficiency and proper service cannot long be maintained by carriers and utilities unless they are accorded a rate structure that will provide them with sound credit and yield them a fair return. If the increases sought would not yield more than enough for such purposes, then no government agency or department should oppose such increases because ultimately the ability of the government itself to render efficient service and to insure our national security is dependent upon the maintenance of sound and efficient systems of transportation and other utilities.

"The importance of these considerations far outweighs the importance of a showing of greater economy in a department's expenditures for transportation. In short, a proper interpretation of the standards of the Federal Property and Administrative Services Act calls for a course of conduct in connection with appearances before regulatory bodies consistent with the requirements of the national transportation policy.

"The same thing is true in connection with the exercise by the General Services Administrator or other executive department officials of the right to negotiate with carriers for transportation services at rates lower than those set by regulatory agencies for application to the general public. It has long been recognized that transportation charges may be unreasonable because of being too low, and any policy of bargaining for rates or playing one carrier off against another with the primary objective of getting the lowest possible transportation rate without regard to the consequences for the carrier is promotive of destructive competitive practices and fosters unsound economic conditions in transportation contrary to the national transportation policy.

"Accordingly, all government agencies and executive departments are admonished to pay full heed to the national transportation policy in their dealings with carriers."

abandon 11 miles of track and its Tulare Street passenger station. The project contemplates elimination of 32 grade crossings.

West Virginia Northern.—The Interstate Commerce Commission has authorized this road to construct an .8-mile extension to its existing line from Kingwood, W.V., to a connection with the Baltimore & Ohio.

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended August 7 totaled 667,592 cars, the Association of American Railroads announced on August 12. This was a decrease of 15,977 cars, or 2.3 per cent, compared with the previous week; a decrease of 117,757 cars, or 15.0 per cent, compared with the corresponding week last year; and a decrease of 114,056 cars, or 14.6 per cent, compared with the equivalnt 1952 week.

Loadings of revenue freight for the week ended July 31 totaled 683,569 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, July 31

District	1954	1953	1952
Eastern	110,532	136,279	114,586
Allegheny	124,573	160,158	128,350
Pocahontas	50,528	59,969	54,095
Southern	113,368	122,772	119,115
Northwestern	114,549	135,391	137,474
Central Western	115,406	121,350	119,728
Southwestern	54,613	57,835	59,728
Total Western Districts	284,568	314,576	316,930
Total All Roads	683,569	793,754	733,076
Commodities:			
Grain and grain products	58,614	52,126	59,431
Livestock	5,876	6,866	6,960
Coal	109,130	133,495	126,865
Coke	7,031	12,774	7,277
Forest products	38,671	48,684	48,892
Ore	68,148	96,078	71,506
Merchandise l.c.l.	60,491	66,692	71,336
Miscellaneous	335,608	377,039	340,809
July 31	683,569	793,754	733,076
July 24	684,287	780,699	607,190
July 17	694,545	791,414	609,000
July 10	569,562	721,454	572,362
July 3	618,597	670,273	447,516
Cumulative total, 31 weeks	19,611,603	22,684,326	21,505,069

Securities

Authorization

NORTHERN PACIFIC.—To assume liability for $5,220,000 of equipment trust certificates to finance in part equipment costing an estimated $6,531,175 (*Railway Age*, July 19, page 13). Division 4 approved sale of the certificates, with a 2¾% interest rate, for 99.78—the bid of Salomon Bros. & Hutzler and three associates—which will make the annual cost of the proceeds to the road approximately 2.8%. The certificates, dated August 10, will mature in 15 annual installments of $348,000 each, beginning August 10, 1955. The certificates were reoffered to the public at prices yielding from 1.5 to 2.875%, according to maturity.

Application

DELAWARE, LACKAWANNA & WESTERN.— To assume liability for $5,700,000 of equipment trust certificates to finance in part the following freight cars, costing an estimated total of $7,196,000:

	Description and Builder	Estimated Unit Cost
500	50-ton box cars (ACF Industries, Inc.)	$7,196
500	50-ton box cars (Magor Car Corporation)	$7,196

The certificates, to be dated August 15, would mature in 30 semiannual installments of $190,000 each, beginning February 15, 1955. They would be sold by competitive bids, with the interest to be determined by such bids.

Dividends Declared

ERIE & KALAMAZOO.—$1.75, payable August 14 to holders of record July 30.

MAINE CENTRAL.—5% preferred, $2.50, accumulative, payable September 1 to holders of record August 16; 6% prior preferred, $1.50, quarterly, payable October 1 to holders of record September 24.

NORTH PENNSYLVANIA.—$1, quarterly, payable August 25 to holders of record August 18.

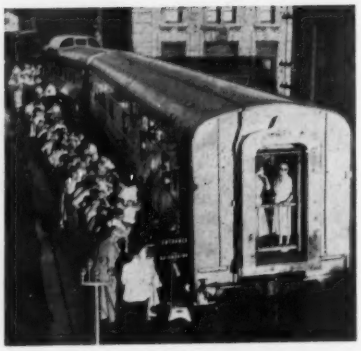
PITTSBURGH & WEST VIRGINIA.—50¢, quarterly, payable September 15 to holders of record August 20.

PITTSBURGH, YOUNGSTOWN & ASHTABULA.—7% preferred, $1.75, quarterly, payable September 1 to holders of record August 20.

RUTLAND & WHITEHALL.—$1, quarterly, payable August 15 to holders of record July 31.

Security Price Averages

	Aug. 10	Prev. Week	Last Year
Average price of 20 representative railway stocks	70.37	71.91	64.29
Average price of 20 representative railway bonds	96.49	95.81	90.78



FIRST of the Canadian Pacific's 173 new all-stainless-steel passenger cars went into revenue service August 12, leaving Montreal for Winnipeg on train No. 7, the "Dominion." As additional cars are completed by the builder—the Budd Company—they will be added to trains between Toronto and Winnipeg, and will eventually be operated through to Vancouver. One of the new sleepers and a new dome-lounge car attracted approximately 77,000 visitors in the course of a trans-dominion exhibition tour—nearly 10,000 at Winnipeg alone (above).

Financial

Boston & Maine.—*Acquisition.*—Division 4 of the ICC has authorized this road to acquire control of the Northern (of New Hampshire) by purchase of capital stock. The B&M now operates properties of the Northern under terms of a lease to the Boston &Lowell, and owns 36.3% of Northern's outstanding capital stock. Division 4 reported that the B&M hopes eventually to arrange, merger of the two roads or to acquire direct ownership of the Northern.

Illinois Terminal.—*Purchase Proposals.* — Two "tentative" proposals looking toward purchase of all physical properties of the IT have been received by the company's board of directors. The board announced their receipt following its August meeting.

One proposal, submitted by Kidder, Peabody & Co., contemplates sale of the company's railroad properties to the Toledo, Peoria & Western. The Sarjem Corporation would acquire the IT's McKinley bridge, which crosses the Mississippi at Venice, Ill., and title to the bridge would ultimately be transferred to the city of Venice.

The second proposal was submitted by a group of railroads serving St. Louis. This group would continue operation of the IT under its present management and no immediate sale of McKinley bridge is contemplated. The bridge might be sold at "some future date," however.

"Both of these groups have indicated their respective proposals will be set up in final and detailed form during the month of August," the IT board said. "It is expected that the board will have a proposal in such form as to justify submission thereof to the stockholders shortly thereafter."

New Orleans Public Belt.—Operating Agreements.—The ICC has approved modifications of contracts between this company and the Texas & New Orleans, Texas & Pacific, Missouri Pacific, and Texas Pacific-Missouri Pacific Terminal. The contracts cover use of Belt facilities and the modifications will give Belt additional compensation for services it performs in connection with so-called "hold cars," which are mainly cars with lading awaiting loading into ships.

Sacramento Northern.—*Trackage Rights.*—This road has applied to the ICC for approval of trackage rights agreements covering operations over the Western Pacific between Sacramento, Cal., and Stockton, and over the Santa Fe between Stockton and Pittsburgh. The 76-mile total of the two segments would enable SN to abandon its car ferry service across the Sacramento river at Mallard and its 4-mile line between Montezuma and West Pittsburgh. Authority to abandon these facilities is sought in an accompanying application.

HERE'S A "Made-to-Order" Job FOR UNIONMELT WELDING

Installing nailable steel flooring in gondolas and other cars can be done at high speed and low cost using the automatic UNIONMELT method. Welding in all of the flooring of 200 gondolas at the rate of *one car an hour* was recently achieved by a Midwestern railroad. They used two UNIONMELT heads, one on each side of the car, to weld the hold down bars to the side sill and with a second pass to weld the bars to the new steel floor members.

This new use for the automatic UNIONMELT welding method is just one more added to the long list of money-saving applications for car repairs and construction.

Why don't you get more information on how UNIONMELT welding can speed operations and cut costs in your shops. Write for booklet 7767 —"New Railway Car-Building and Repair-Shop Methods."

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BRAKE BEAM
safety support

gives extra safety in the brake danger-zone!

The G. N. Brake Beam Safety Support, through sound engineering, dependable performance and easy installation, can prevent a derail due to brake beam or brake hanger failure.

- THE COMPRESSION AND TENSION MEMBER CONNECTING BRACKET ASSURES PROPER LOCATION OF SUPPORT AT TIME OF APPLICATION AND IN SERVICE.
- Lightweight without sacrificing strength.
- Adjustable to provide proper clearance over bolster.
- No drilling, riveting or welding.
- Easy to apply on loaded or empty cars—NO NEED TO JACK CAR OR REMOVE TRUCKS.
- Wheels can be removed without disturbing supports.
- Attaches to brake beam only.
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Just What Specific Changes in Regulation?

The New York Times of August 8, in an article by J. H. Carmical, reported that—despite the current decline in the level of industrial production—the inland waterway carriers are everywhere enjoying a marked increase in traffic. On the Upper Mississippi volume is up 12 per cent over last year, and on the Tennessee river system the increase is 32 per cent. Users of the coastwise system likewise report a 12 per cent increase. Not only is traffic on the rise, but more and more industries are locating on waterways to take advantage of this subsidized and low-cost bulk service. The loss of traffic by the railroads to the trucks is a familiar story, but the parallel diversion to bulk water carriers is no less significant and alarming.

What is going on in transportation is not evolution—it is a revolution. And the railroads have not yet succeeded in adapting either their service or their rates to meet the rapid change in their circumstances. It is true that regulation is a handicap in making the necessary adaptation—but before regulation is likely to be modified, people speaking with experience and authority must set forth persuasively what specific changes are needed, and why. In this space a week ago, we quoted at length from an address by President James M. Symes of the Pennsylvania, indicating the course of action he believes the railroads should follow. Addressing the Railroad Public Relations Association on June 14, Ernest Williams, associate professor of transportation at Columbia University, suggested the following seven points wherein, in his opinion, regulation should be modified:

"1. In the present highly competitive position I see no compelling necessity to continue the power to fix maximum rates. I am, therefore, not greatly interested in the fast-rate bill nor in measures to alter the rule of rate making, for I would prefer to eliminate the general rate level proceeding altogether. I realize, of course, that it may be necessary to settle for less and that, except as this item is included in a broader framework, it may be impossible to make progress.

"2. The power of suspension was devised in 1920 to meet a felt requirement of fairness to shippers. The growth of competition by non-rail carriers has perverted it into the most significant obstacle to effective and fast reaction to competitive developments. Indeed, I believe, in an insidious way, small case by small case, the policies developed in suspension proceedings have done more harm to the railroad industry than even the delay in revenue proceedings.

"3. The minimum rate power ought to be exercised only to prevent rate wars when rates are established which are clearly non-compensatory. The tests of a compensatory rate need much more careful definition, but it is essential if we are to have the most economical transportation that a low-cost type of carrier be permitted to give full effect to its cost advantage if it desires to do so.

"4. No persuasive argument appears to require retention of the Fourth Section.

"5. The rule of Section 3 needs to be retained with the proviso that the commission's authority be confined to the determination of rate relationships, leaving the level of rates free for adjustment as carriers deem wise.

"6. I am bound to say that, although I propose a considerable diminution in the scope of regulation, I believe this reduced regulation in all its aspects must be applied to all for-hire transportation. The exemptions in Parts II and III of the Act, with minor exceptions, should be done away with.

"7. Finally it is obvious that, if a healthy railroad system is to be preserved, provision must be made to assert the federal authority where states refuse to permit abandonment of manifestly unprofitable services."

Professor Williams made it clear that he did not put forward these suggestions as firm conclusions, but as an indication of "the direction of my recent thinking regarding the content of a program for regulatory revision." He asserted:

"Regulation is not even slightly understood by the general public. They have no impression of its content or results. Nor is the average business or professional man, apparently, much better informed. In the last century economics professors in our colleges and universities were universally well informed on the subject, for they took part on both sides of the struggle that led to the act of 1887. Today they know little about it and care less, provided we exempt the handful of transportation economists and a few others who devote themselves to the study of government control of business. . . .

"The biggest present failure in marshalling a public opinion favorable to regulatory relaxation is, perhaps, that virtually nothing has been said as to how the public at large and the nation would benefit. . . .

"Try to search out a complete regulatory philosophy . . . in the place of a number of individual measures each of limited import when taken by itself."

It is the belief of this paper that rapid reorientation of the railroad industry to the facts of the present competitive market in transportation is the price of survival of the railroads as private enterprise. The 184 essays entered in the "Inherent Advantages" contest, conducted by this paper under the sponsorship of President Warren W. Brown of the Monon, gave evidence of the widespread interest of transportation people in this question. The winning essay in this contest, along with nine others selected by the judges as "distinguished contributions," are being published by this paper in a booklet* entitled "Essays on 'Inherent Advantages' of Railway Service."

*"Inherent Advantages" booklet may be purchased in quantity as follows: 10 copies, 75¢ each postpaid. 50 copies, 50¢ each. 100 copies, 40¢ each f.o.b. printer. Single copies, $1 each postpaid.

Questions and Answers FOR THE TRANSPORTATION DEPARTMENT

Is there any relationship between per diem and demurrage charges? When one changes should the other be changed to preserve their relationship? *Our answer was "No" (July 5 Railway Age, page 14).*

A reader disagrees . . .

The demurrage rate should always exceed the per diem rate. How much it should exceed the per diem rate should be based on judgment and overall car supply.

In the celebrated Chrysler case, which, I believe, was the first case in which the Interstate Commerce Commission was called upon to decide whether or not regularly published demurrage charges would be reasonable where a receiver was unable to release cars due to a strike, the commission found that a reasonable demurrage charge would be the per diem rate, which then was $1.00, plus a reasonable charge covering the cost to the railroad in paperwork incident to maintaining the demurrage records. As I recall it, the ICC added 20 or 30 cents per car per day to the per diem rate to cover costs to the railroad.

When the per diem rate was $1.00, the demurrage charge before the car had been detained long enough to reach penalty demurrage was $2.00 per day. It would be absurd, as I see it, to say that with the per diem rate increased to $2.40 the demurrage rate should remain at $2.00. I think you and the Eastern Association of Car Service Officers have given a wrong answer on this question.—*A. F. Swinburne, executive assistant, Car Service Division, Association of American Railroads.*

Here's our reasoning . . .

Cost of ownership, as reflected in the per diem rate, is, admittedly, *one* of the factors to be considered when determining the charge to be made against shippers and receivers for undue detention to railroad equipment. I readily agree with Mr. Swinburne that it would be inequitable, to say the least, to leave the demurrage rate at $2.00 when the per diem rate is fixed at $2.40. However this does not mean that there should be a fixed relationship between the two charges. The question came before the Eastern Association of Car Service Officers as a suggestion that inasmuch as the per diem rate presently is four times as great as the rate in 1919, should not the demurrage charge be four times what it was in that year.

The per diem rate is now four times that of 1919, while the regular demurrage charge is but 50% greater, and the penalty rate but 20% higher than in 1919.

That the demurrage rate always should exceed the per diem rate (cost of ownership) is certain. How much it should exceed per diem is another question. The record indicates that there has not been—and I believe there cannot be—any fixed relationship between the two. The factors other than the cost of equipment ownership or rental are so variable and so entirely independent of ownership costs that a fluctuation in the relationship between per diem and demurrage is bound to occur.

The relationship between per diem and demurrage charges over the years since 1919 has been as follows:

Effective Date	Demurrage	Per Diem
July 1919	$2.00 each of first four days; $5.00 per day thereafter	$0.60
April 1938	$2.20 each of first four days; $5.50 per day thereafter	$1.00
September 1949	$3.00 each of first four days; $6.00 per day thereafter	$1.50
October 1953	$3.00 each of first four days; $6.00 per day thereafter	$2.40

I question whether or not the Chrysler decision has any pertinent bearing on the per diem-demurrage rate relationship. The decision simply gave relief to a strike-bound consignee. The ICC said that the consignee, instead of paying the regular demurrage rates prescribed by tariff should reimburse the railroad for its car-hire costs and the costs of keeping the demurrage records. This principle has since been incorporated in the demurrage tariff, and the rate named has kept pace with increased costs of ownership. It is now $2.65—*G. C. R.*

We have received some answers to the quiz on the handling of explosives, which appeared in this column in the July 19 issue. Some are right and some are wrong. But we'd like to get some more. Send them along. The correct answers will be published in this column September 13.

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, *Railway Age*, 30 Church Street, New York 7.

SWITCHES are power operated and incorporated in a traffic control system controlled from Jersey City.

No. 24 Equilateral Turnouts . . .

PERMISSIBLE SPEEDS through turnouts are expected to be raised by adjusting superelevation of adjacent curves.

. . . Permit High-Speed Movements

Installations on the Erie at points where double track converges into single track allow trains to operate through turnouts at the maximum allowable speed of 79 mph with comfort to passengers

The application of several present-day technological developments in trackwork design and in traffic control systems has enabled the Erie to single-track a portion of line where the railroad formerly, in effect, had four tracks. And this has been done without sacrifice of train speeds or capacity to handle traffic.

Figuring prominently in this project is the use of equilateral No. 24 turnouts. These turnouts, operated by power switch machines incorporated in a traffic control system, make it possible for fast trains to proceed through the switches at relatively high speeds, and with complete safety and comfort for passengers.

This project represents the first installation of No. 24 turnouts in this country, although they have been used in France. Using the formula of the American Railway Engineering Association for calculating speeds through curves at a 3-in. unbalanced elevation, it is figured that trains with a center of gravity of 84 in. above the top of rail may operate through these turnouts at 88.3 mph with comfort to passengers. As a matter of more or less abstract interest, the maximum safe speed through the turnouts is calculated at 119 mph, with no danger of overturning until a speed of 217 mph is reached.

For the present, because of restrictions imposed by adjacent curves, train speeds through the No. 24 turnouts on the Erie are being held to 60 mph. But it is expected that adjustment of the superelevation of curves in the immediate vicinity will make it possible to raise this to 70 mph, and eventually even higher.

This installation is a few miles east of Port Jervis,

DETAILS OF ERIE EQUILATERAL NO. 24 TURNOUTS

GENERAL

Lead length—176 ft 2¼ in.
Curvature through switch and lead rails—0 deg 35 min
Distance from point switch to point tangent (13-ft track centers)—476.17 ft

SWITCHES

Points 39 ft long (curved)
Angle at point of switch—0 deg 15 min 40.35 sec
Heel spread of switch—6¼ in.
Points are Sampson design, reinforced 1¼ in. on gage side; ½ in. on stock-rail side
Rods—vertical design
No. "O," or front rod—Racor type "MF"
Nos. 1, 2, 3, 4, 5 and 6—Racor type "MJ"
Rail braces—Racor Security Adjustable type (22 per switch)
Heel fillers—5-bolt, cast-steel design

FROGS

Angle—2 deg 13 min 13 sec
Length—37 ft
Heel length—23 ft 9 in.
Toe length—13 ft 3 in.
Railbound manganese construction in accordance with AREA Plan 600 except heavier side walls
Hook twin tie plates at toe and heel
Tie plates under frog proper—¾ in. by 8 in. with welded stops

GUARD RAILS

Length—19 ft 6 in.
Blocks and bolts in accordance with AREA designs
Racor rolled shoulder tie plates

N. Y., on the Erie's main line between Chicago and Jersey City. The original double-track line, built in 1851, included some heavy grades in the Shawangunk mountains requiring helper locomotives for freights. For this reason an alternate double-track low-grade line for freight trains, known as the Graham line, was built in 1905-08. At its west end the Graham line connected with the main line eight miles east of Port Jervis, while at its easterly end it joined the main line at Newburgh Junction, N. Y., 40 miles from the west end.

Near the westerly end of Graham line is the mile-long Otisville tunnel, the only main-line tunnel on the Erie. At Howells, N. Y., about 11 miles east of the westerly end of the Graham line, the latter line swings back close to the main line for a short distance. This location offered the possibility of joining the two lines, diverting all traffic over one west of the connection, and abandoning the comparable section of the other. Since the Graham line offered more favorable grades and curves, it was logical to retain this route, abandoning a portion of the original main line.

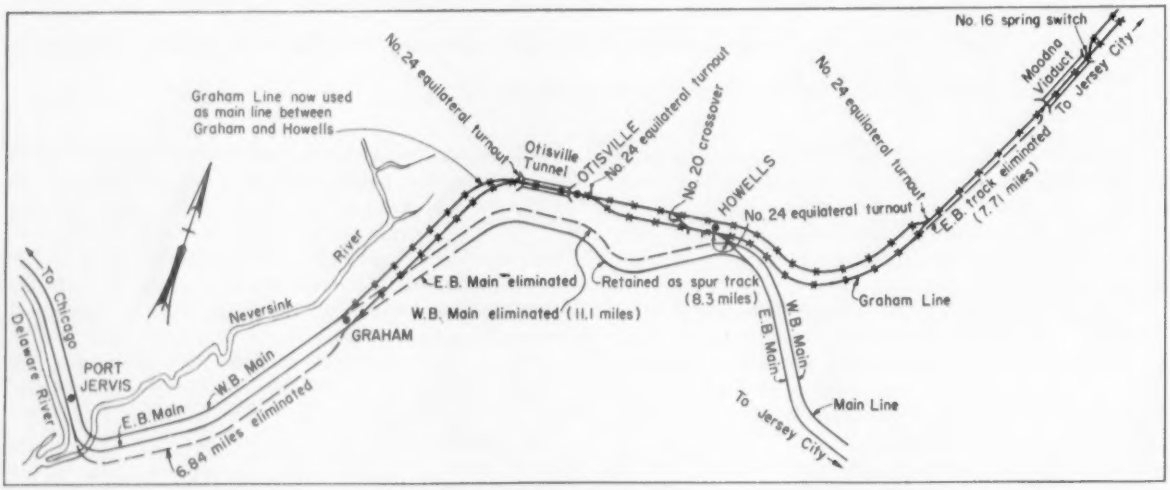
Close Clearances in Tunnel

For some time it had been recognized that, with two tracks passing through it, Otisville tunnel did not offer adequate clearances for future loads. Therefore, as part of the new project, the line was converted to single track through the tunnel, taking up the eastbound main and shifting the westbound main to the center of the bore.

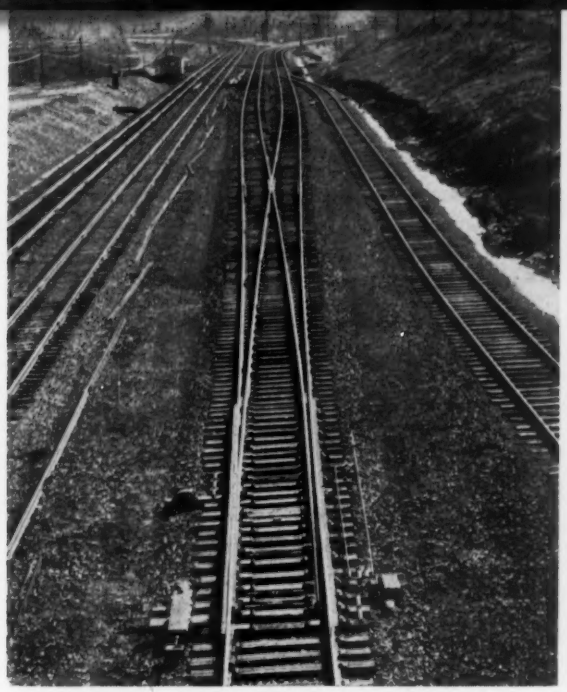
The accompanying map shows the principal elements of this project. One of the old main tracks was taken up for 11.11 miles between Graham and Howells Junction, but a portion (8.3 miles) of the old eastbound main was left in place at the easterly end to serve industries. Also, about 6.84 miles of third main track between Graham and Port Jervis, which served as a passing siding, was removed. Moreover, a section of line west of Moodna viaduct on the Graham line has been converted to single track by taking up one of the main tracks. East of Moodna viaduct the line remains double track, with the westbound main terminating in a spring switch where it joins the eastbound track.

Features of Equilateral Turnouts

The track changes involved in this project created three locations where double-track merges into single track. Equilateral No. 24 turnouts were installed at these three locations, as well as at two other locations at Howells Junction where a connection is made between the



SINGLE-TRACKING of Otisville tunnel was done as part of project which resulted in abandonment of considerable trackage.



WHAT IS A NO. 24 EQUILATERAL TURNOUT?

The "number" of a turnout is determined by dividing the distance from the theoretical point of frog by the "spread" at the point where the distance is measured. Thus, in a No. 24 turnout the spread 24 in. from the theoretical point is 1 in. By way of contrast, in No. 8 turnouts, which are commonly used for unimportant sidings and for yard tracks, the rate of spread is much greater, being 1 in. at a distance of only 8 in. from the theoretical point. This rate of spread determines the frog angle which, in turn, along with other factors, establishes the sharpness and length of a turnout.

At locations where single track diverges into two tracks, it is sometimes the practice to divide the frog and switch angles equally between the two tracks, thus creating an equilateral turnout. When this is done each of the diverging tracks has only half the curvature that would be required if a turnout of the same number were installed from straight track. For example, whereas a regular No. 24 turnout with curved switch points has a curvature through the switch and lead rails of 1 deg 10 min, this becomes 0 deg 35 min for each of the diverging tracks in an equilateral No. 24 turnout.

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main line and the eastbound main of the Graham line. These turnouts are built with 140-lb material and were furnished by the Ramapo Ajax Division of American Brake Shoe Company. Principal details are shown in the accompanying tabulation. In all the No. 24 turnouts the stock rails are undercut to receive the Sampson switch points, and the points are flame hardened to give them greater durability. At each location, Racor tie pads are used to protect the ties from tie-plate cutting, and rail anchorage is provided by compression clips. The oak switch ties were treated with 6½ lb per cu ft of an 80-20 creosote-petroleum mixture.

Electric switch machines are used. In order to be sure that the full length of these long switch points is moved over properly, a second "helper" connection at the No. 5 rod is pipe-connected through cranks to the operating rod. Each switch is provided with roller bearing and heel blocks equipped with thimbles.

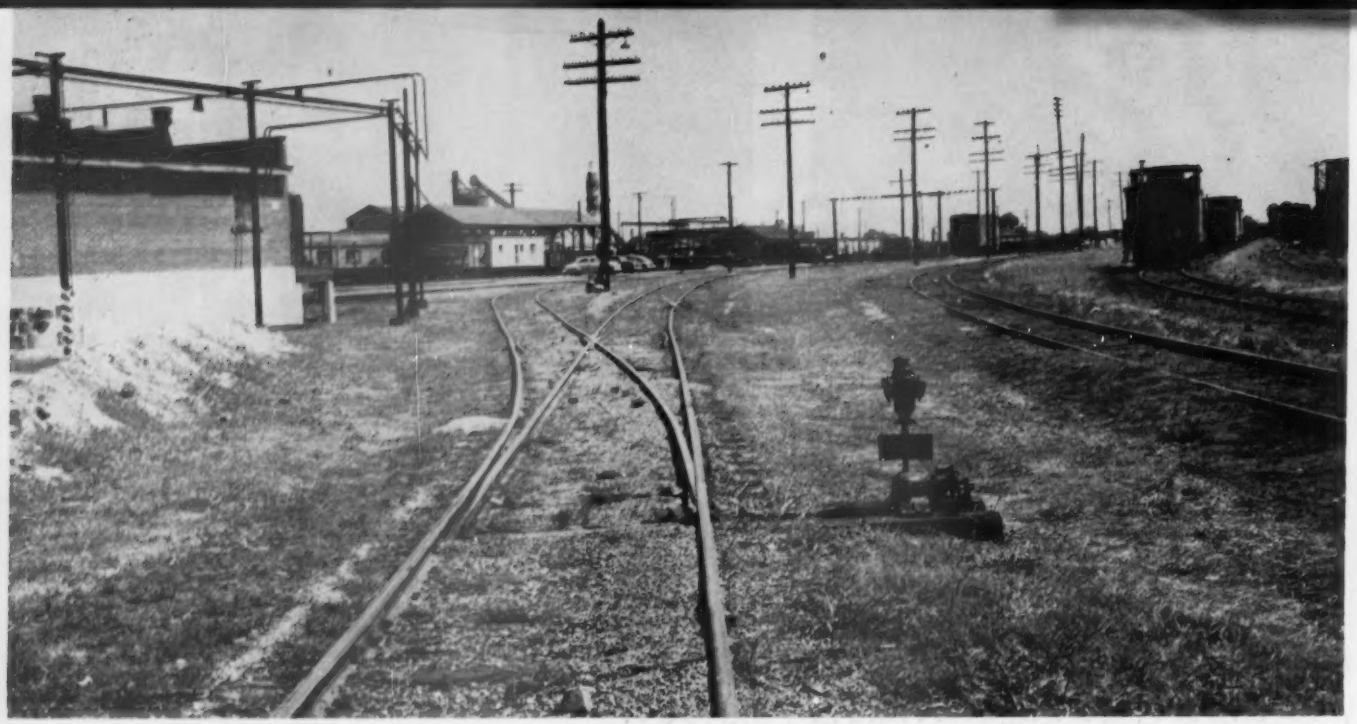
The traffic control system extends from Howells Junction to "BC," just east of Port Jervis. Control of this system is centered in the train dispatcher's office at Jersey City, 70 miles away. All of the No. 24 turnouts are incorporated in the system, including the one on the Graham line where double track converges into single track west of Moodna viaduct.

As part of the project, signaling for train movements in both directions was installed on the westbound track between the tunnel and "BC." With this signaling, a fast eastbound train can be authorized to use this either-direction track to run around a slower train on the eastward track. This also applies to both tracks between the tunnel and Howells.

Remotely Controlled Switch Heaters

The power-operated switches in this project are equipped with propane-burning snow melters. These heaters, like the traffic control system as a whole, are controlled from the dispatcher's office at Jersey City, using the same single pair of wires, which, by the coded impulse system, controls the switch machines and the signals. The dispatcher turns on the heaters a half hour before a train movement, as experience on the Erie has demonstrated that this period gives the heaters time to clear the switch regardless of the amount of snow.

This project was carried out under the general direction of B. Blowers, chief engineer of the Erie, and W. S. Storms, signal engineer. The switch machines of the No. 24 turnouts at both ends of Otisville tunnel were furnished by Union Switch & Signal; all other switch machines, as well as the traffic control system, including the control machine at Jersey City, were provided by the General Railway Signal Company. The switch heaters were furnished by the Rails Company.

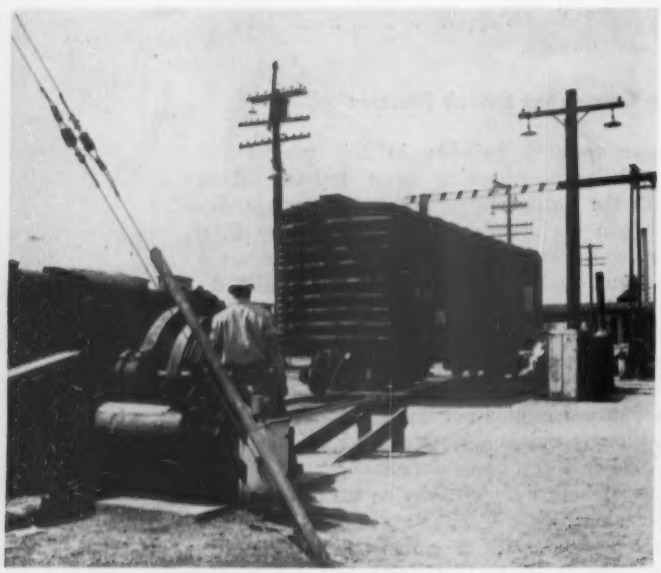


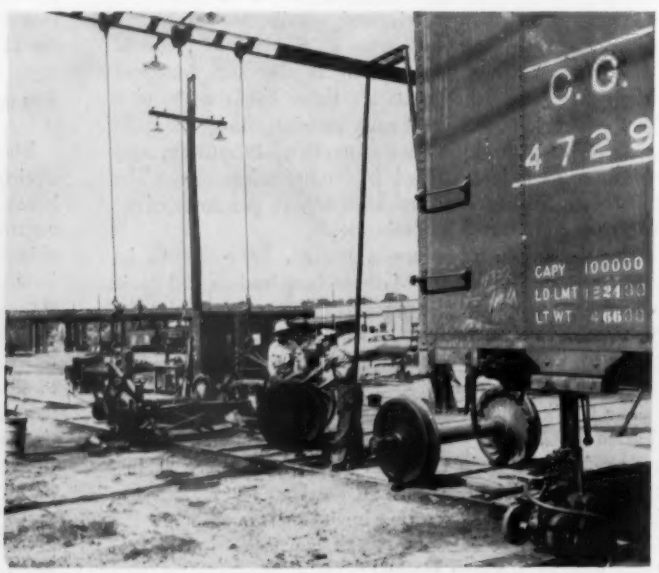
FIRST . . . The switch has been thrown by the lead carman to lock track No. 1 (right) in, and track No. 2 (left) open, into which the yard can kick bad-order cars at any time. Tracks are accessible from the yard at both ends, and switches have special shop locks which cannot be opened with a switch key. When repairs are completed on track No. 1 the switches will be reversed and work proceed on No. 2.

The Bad-Orders Go Through

By GLENN W. BURKE
Master Mechanic, Columbus Shops
Central of Georgia

For years, it has been the accepted practice among railroads to designate a track in a yard to which bad-order cars are switched and from which they are again switched to a shop repair track. When they are repaired there they are then pulled and forwarded to destination. This often results in a day's delay to the shipment and payment of a day's per diem, besides the danger of creating a dissatisfied shipper and a dissatisfied consignee.





THEN . . . Cars can be moved in either direction for spotting by the car puller (left). The operation is completely under control of the carman. A monorail, from which pull-lift jacks are suspended (left center), spans both tracks at the work location. Air cylinders in the ground between rail serve as turntables for . . .

When the Central of Georgia became completely dieselized, two tracks at Columbus, Ga., adjacent to the yard, previously used for the storage of coal, were released. These tracks are 947 ft long and have a space of 36 ft between them. With minor alterations, they were converted into running-repair tracks where all classes of repairs, except heavy, are made 24 hours per day, 7 days per week.

With the installation of adequate lights and the transfer of facilities and men from the shop repair track, a work location, with all necessary materials and tools, was made available. This work location is established halfway between the switches and a car-spotter is used to pull cars to position for repairs, thereby eliminating the use of a switch engine. A derailer, equipped with shop lock, is placed on each end of both tracks. The switches are likewise equipped with shop locks, and only the lead carman of each shift has possession of a key.

The switching lead, where trains are switched, is connected to these repair tracks. One of the tracks is kept open, with derailer off and switch lined, so that bad-order cars may be kicked to this track by yard engines while carmen are repairing cars on the other track, which is kept closed and protected by locked switches and locked derailers, making it impossible to subject the men at work to injury.

This work location is the heart of the operation. Briefly, it consists of a monorail 22½ ft. high, with three 1½-ton pull-lift jacks suspended on trolleys for all truck work, including wheel changes, truck bolsters, and truck sides, and for coupler applications, load adjustments, rehanging doors, etc.

In addition, there are in this area eight small jacking pads, brake cylinders in the ground between the rails with extensions for handling wheels with air, four 50-ton air jacks, cutting and welding torch equipment and wheel-storage tracks with a small buggy, which enables one man to bring the wheels to a car for application to its truck.

It is possible to have as many as 18 bad-order cars on these repair tracks at one time. However, since this service was inaugurated (November 9, 1953), there has been no occasion when the maximum number of cars was on the tracks, as repairs are made and cars turned back to the yardmaster as fast as they are placed on the tracks.

No distinction is made between loads and empties. Both are repaired promptly as they are set out on the repair tracks. The carmen who make the repairs are the same men (inspectors) who work in train yards inspecting in- and out-bound trains, classifying cars, closing dump doors, running airbrake tests on outbound trains, etc. It frequently occurs that the man making the repairs is the same man who bad-ordered the car.

As these running-repair tracks are operated 24 hours a day, overtime has been entirely eliminated. This was done by dividing the force that formerly worked at the shop repair track eight hours per day Monday through Friday into three 8-hour shifts and spreading the assignments to cover the full day. It was not necessary to add to the inspection and repair force to change over to this 24-hour operation.

No attempt has been made to estimate what this repair service—which enables bad-orders to go through on schedule performance—means to the railway in creating revenue. However, we do know that effective operating service and a high standard of performance beget satisfied customers and good will toward the railway, which are inescapable factors to consider in potential business.

Bad-order cars are not delayed at Columbus.

. . . wheels and axles. Jacking pads are provided at the sides of both tracks. Wheel storage tracks (right center) are readily accessible to the work location. At the right a new pair of wheels has been appli d and the yardmaster notified. The yard engine is ready to pull car from repair track No. 1 and place it in train without missing schedule.

A CRITICAL AUDIENCE—shopmen, who built the car, and their families—were given the first ride in this bilevel dome lounge car.

SP EMPLOYEES SAMPLE THEIR . . .

Dome Car of New Dimensions

At the suggestion of President D. J. Russell, employees of the Southern Pacific's Sacramento general shops were the first to ride in the bilevel dome lounge car which they had built (*Railway Age*, August 2, page 11). Those aboard the car on its maiden run between Sacramento and San Francisco on July 24 represented all of the crafts engaged in its construction. After the employees completed their trip, a second run was made for railway officers.

On July 26 the car was placed in revenue service in the "San Francisco Overland." It will be shifted around to a number of different "name" trains throughout the SP system in order to study passenger reaction to its unusual design.

Unlike other dome cars, the SP model has only two floor levels—the normal floor and the dome. Both levels are under glass. Because there is no depressed floor between the trucks, there are no seats or passenger facilities of any kind beneath the upper level. The car has a lounge section on both levels and the upper level also has an observation section. All of these accommodations on both levels are beneath the glass dome top which extends about three-quarters the length of the car. The remaining part of the car contains a small service bar and valet quarters.

The car was constructed upon the underframe of a round-end observation car built in 1937. To provide for the new floor plan, it was lengthened about 3 ft, making

EXTERIOR COLORS are those of the SP's "Daylight" fleet—orange and red. The two large windows are in the lower lounge.

UPPER FLOOR LEVEL includes the 28-passenger coach-observation section and the 20-seat cocktail lounge (foreground). The coach-type seats are angled outward slightly for easier viewing.

UNUSUAL SPACIOUSNESS of the bilevel design is evident in this picture taken during the car's first revenue run.

the length 81 ft 2 in. over platforms and 79 ft over end sills. At the same time the truck centers were lengthened to 55 ft. The completed dome body increased the weight of the car from the original 100,000 lb to 156,000 lb. The dome is 61 ft 8-3/8 in. long and is built with stainless-steel structural members purchased from an outside builder. The top of the dome is about 20 in. above the normal roof line.

Sliding end doors lead directly to the interior of the car. There are no vestibules. At the entrance to the observation end, six steps lead upward to the coach and upper lounge sections. Here there are seats for 48, including 28 in the coach section and 10 sofas grouped about six cocktail tables. Six steps lead down from this lounge to the lower lounge which is also beneath the dome and which has, in addition, four large windows at the normal height.

This lower lounge seats 16 at a sofa-and-table arrangement similar to that in the upper lounge. Both sections are decorated in shades of green and brown. The floor is covered with green carpeting. The service bar, trimmed with stainless steel, adjoins the outer end of the lounge and beyond it are the valet's quarters.

The air-conditioning is provided by two identical 7½-ton systems, including Waukesha ice engine, Safety Car Heating & Lighting full-flooded condenser, and Trane overhead fan and evaporator. Compressors and propane fuel tanks are placed beneath the car underframe. The evaporator and blower serving the rear end of the car are housed in the space under the upper floor, to supply conditioned air through ducts in the end of the car into the overhead duct which runs the length of the dome. The other cooling unit is over the valet's room. There is storage locker space beneath the upper floor. The car is equipped with new 4-wheel trucks made by General Steel Castings.

The design and engineering of the car were under the direction of B. M. Brown, general superintendent of motive power at San Francisco. Construction was under the general direction of Frank E. Russell, superintendent of motive power, and F. E. Molloy, assistant superintendent, both at Sacramento.

TWO-DAY STAFF MEETINGS introduced the new manual to employing officers and chief clerks. Authors of the manual, J. R. Sullivan (rear, hand on chin), and O. W. Motter (standing), conducted these sessions.

Hiring the Right Man

A "Manual for Interviewers" helps employing officers as the IC standardizes its employment procedures

Getting the right man for the job is being turned into an exact science on the Illinois Central, where a new plan has been adopted to aid supervisors in hiring men. Purpose of the system-wide plan, known as Standardized Employment Procedure, is two-fold: It aims at setting up uniform requirements for a given job, regardless of where the job is located; and it outlines a method for screening day-to-day job applicants to assure the IC's getting the best possible employee.

Nub of the IC plan is a "Manual for Interviewers," a loose-leaf volume containing step-by-step procedures for interviewing and testing prospective employees. Use of the manual is expected to tighten up hiring practices generally. It will give a supervisor more facts and better facts upon which to make a decision. It will, as a result, reduce chances of employing misfits. And by guiding applicants into work where they will be happiest and most productive, labor turnover is certain to be less.

The IC interviewers' manual is divided into ten parts, or sections. It contains instructions and sample forms to help any employing officer through the hiring process.

Job Description: The initial step in the new IC procedure requires the employing officer to put down in writing the qualifications for any *beginning* job for which he employs new people. The manual contains a brief one-page form as a helpful guide in this respect. When these job sheets are prepared, copies are forwarded to the IC personnel department at Chicago. There they can be used in developing job descriptions on a system-wide basis.

Special Instructions: Copies of all current letters of instruction from the general manager to division superintendents and employing officers in the operating department are included in the manual. These letters cover such items as age limits, legal requirements and educational standards.

Physical requirements for IC employment are set forth in Circular No. 18, which appears in the third section of the manual. Actually, however, the physical examination is the final hurdle which a job applicant must clear.

Screening Interview: This marks the first actual contact between an applicant and the railroad, and is a key step in the hiring process. To provide a brief but permanent record of each applicant, the job-seeker is asked to fill out a simple Employment Registration Card. This card provides an outline of the applicant's qualifications and a list of his former employers; and it gives the IC a running record that can be helpful in two ways—in filling sudden vacancies that occur from time to time, and in weeding out undesirables who keep coming back, often with a new set of tailormade qualifications.

The employing officer or chief clerk conducts a screening interview when he obtains the registration card. This serves to get facts straight, and to give the applicant a favorable first impression of the railroad. The interviewer checks such matters as names, addresses, age and work history for the past five or ten years. The salary level is mentioned because an applicant's sights are sometimes high. Obvious or indicated physical defects must be noted because they may disqualify the applicant immediately. Particular attention must be given, also, to

E. H. HALLMANN heads the Illinois Central's personnel department which has some new ideas about hiring men.

THIS TEN-PART MANUAL is helping standardize employment methods over the entire system.

an applicant's educational and military history. After the interview is completed, with the necessary information in hand, the interviewer can usually rate an applicant as a Good, Above Average, Average, Acceptable or Poor candidate for IC employment.

Checking References: Since an applicant is likely to present only facts favorable to himself, the next step is to look for more information elsewhere. In checking former employers, the IC has had success with the telephone check. This has the advantage of being quick, and in many cases information can be obtained that would not likely be placed in writing. The manual emphasizes the importance of making these telephone checks prior to the Patterned Interview, because they arm the interviewer with a maximum of information about the applicant. Another item for an employing officer to check at this point is the applicant's draft papers or discharge from military service. The manual contains detailed information on various types of Army and Navy discharges.

Patterned Interview: The job applicant who passes preliminary screening to this point is ready for the comprehensive Patterned Interview. The IC management considers this the vital step in its selection program, because it results in the final recommendation to hire or not to hire. The purpose of the interview is not only to get basic information but to determine attitudes and reactions. The IC has adopted a seven-page interview form on which the interviewer obtains all personal facts about an applicant—his work history, schooling and social adjustment, armed service record, family and home background, present domestic situation and health.

Employing officers who must conduct this interview are advised that the interview form is not intended as an iron-clad procedure. Tangent questioning is encouraged when answers by an applicant indicate such a course is desirable. As a further aid to the interviewer, the regular questions on the interview form are supplemented with other questions, in red ink, directed at the interviewer himself. These "thought-starters" aim at jogging him into any further probing that may be necessary to get all the facts. The interviewer can of course "pull the pin" any time he turns up information which is considered unfavorable.

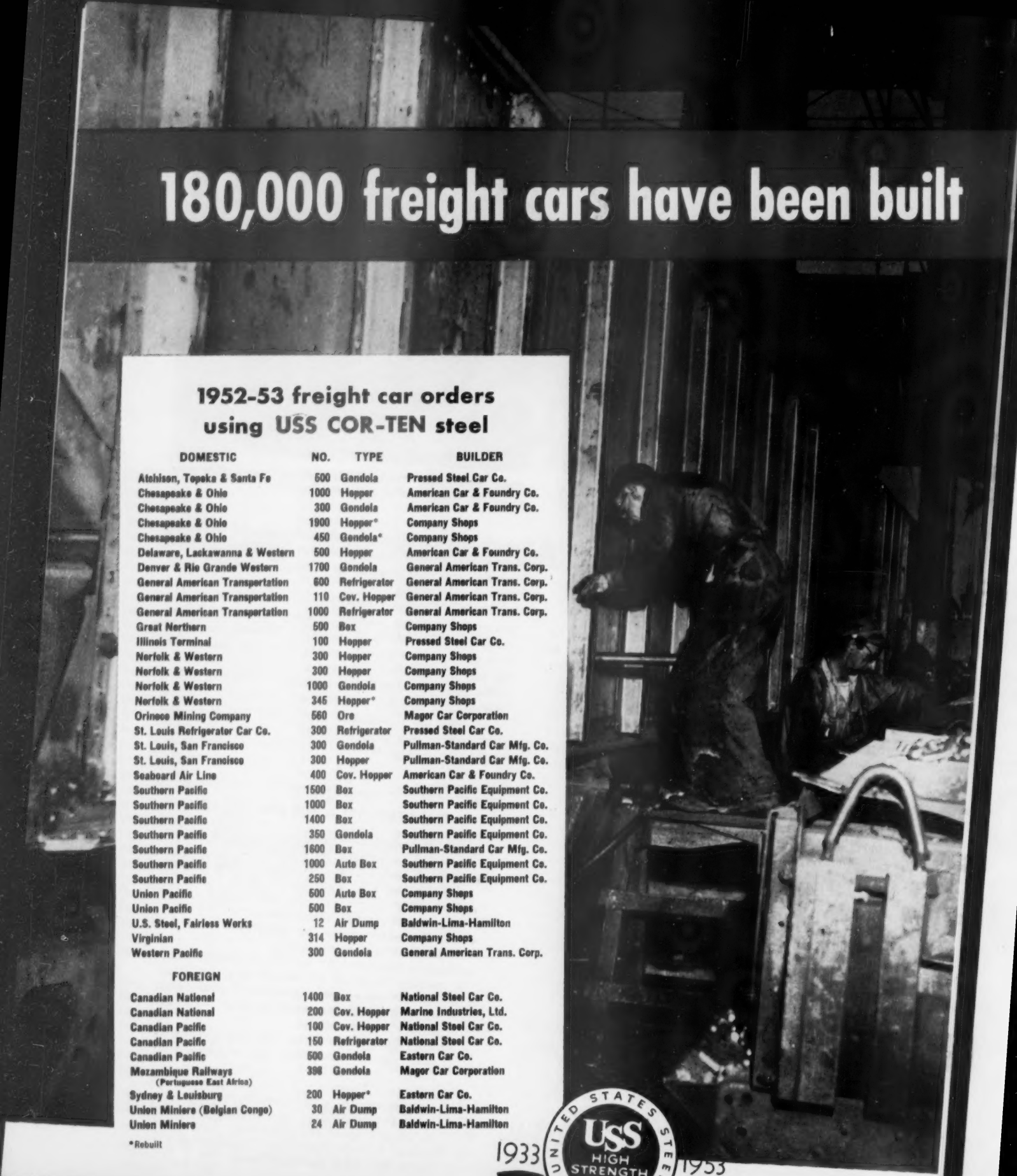
The IC's Patterned Interview is regarded as an improvement over an informal interview because it provides a definite series of questions, it keeps the applicant talking about himself, and it alerts the interviewer, via the "red questions," to get a complete story. Meanwhile, there is a worthwhile by-product of this standard interview: It becomes part of the applicant's permanent record and the information it contains may some day pave the way to a promotion.

(Continued on page 38)

TEN STEPS TO A JOB ON THE IC

- **Job Description—Qualifications need to be listed in writing by employer.**
- **Special Instructions — Outstanding letters from the GM must be checked.**
- **Screening Interview — Get initial facts promptly, write them down.**
- **Check References—The telephone may be the best and quickest way.**
- **Minor's Release—A "must" document. Also needed is proof of actual age.**
- **Patterned Interview—Complete 7-page form on applicant's personal history; note attitudes and reactions.**
- **Employment Tests—An I.Q. for everyone, plus special aptitudes for clerks, non-clerks.**
- **Application Form — A standard-type form, containing 16 major questions.**
- **Finger Prints—Prints are taken, delivered to special agent for checking.**
- **Physical Exam—Operating Department Circular No. 18 is the rule book.**

180,000 freight cars have been built



1952-53 freight car orders using USS COR-TEN steel

DOMESTIC	NO.	TYPE	BUILDER
Atchison, Topeka & Santa Fe	500	Gondola	Pressed Steel Car Co.
Chesapeake & Ohio	1000	Hopper	American Car & Foundry Co.
Chesapeake & Ohio	300	Gondola	American Car & Foundry Co.
Chesapeake & Ohio	1900	Hopper*	Company Shops
Chesapeake & Ohio	450	Gondola*	Company Shops
Delaware, Lackawanna & Western	500	Hopper	American Car & Foundry Co.
Denver & Rio Grande Western	1700	Gondola	General American Trans. Corp.
General American Transportation	600	Refrigerator	General American Trans. Corp.
General American Transportation	110	Cov. Hopper	General American Trans. Corp.
General American Transportation	1000	Refrigerator	General American Trans. Corp.
Great Northern	500	Box	Company Shops
Illinois Terminal	100	Hopper	Pressed Steel Car Co.
Norfolk & Western	300	Hopper	Company Shops
Norfolk & Western	300	Hopper	Company Shops
Norfolk & Western	1000	Gondola	Company Shops
Norfolk & Western	345	Hopper*	Company Shops
Orinoco Mining Company	560	Ore	Magor Car Corporation
St. Louis Refrigerator Car Co.	300	Refrigerator	Pressed Steel Car Co.
St. Louis, San Francisco	300	Gondola	Pullman-Standard Car Mfg. Co.
St. Louis, San Francisco	300	Hopper	Pullman-Standard Car Mfg. Co.
Seaboard Air Line	400	Cov. Hopper	American Car & Foundry Co.
Southern Pacific	1500	Box	Southern Pacific Equipment Co.
Southern Pacific	1000	Box	Southern Pacific Equipment Co.
Southern Pacific	1400	Box	Southern Pacific Equipment Co.
Southern Pacific	350	Gondola	Southern Pacific Equipment Co.
Southern Pacific	1600	Box	Pullman-Standard Car Mfg. Co.
Southern Pacific	1000	Auto Box	Southern Pacific Equipment Co.
Southern Pacific	250	Box	Southern Pacific Equipment Co.
Union Pacific	500	Auto Box	Company Shops
Union Pacific	500	Box	Company Shops
U.S. Steel, Fairless Works	12	Air Dump	Baldwin-Lima-Hamilton
Virginian	314	Hopper	Company Shops
Western Pacific	300	Gondola	General American Trans. Corp.
FOREIGN			
Canadian National	1400	Box	National Steel Car Co.
Canadian National	200	Cov. Hopper	Marine Industries, Ltd.
Canadian Pacific	100	Cov. Hopper	National Steel Car Co.
Canadian Pacific	150	Refrigerator	National Steel Car Co.
Canadian Pacific	500	Gondola	Eastern Car Co.
Mozambique Railways (Portuguese East Africa)	398	Gondola	Magor Car Corporation
Sydney & Louisburg	200	Hopper*	Eastern Car Co.
Union Miniere (Belgian Congo)	30	Air Dump	Baldwin-Lima-Hamilton
Union Miniere	24	Air Dump	Baldwin-Lima-Hamilton

*Rebuilt

1933 UNITED STATES STEEL USS HIGH STRENGTH STEELS 1953

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USS HIGH STRENGTH STEEL

better with USS COR-TEN steel since 1933

IN THE LAST TWO YEARS, ORDERS HAVE BEEN PLACED FOR

22,000 freight cars

built with USS COR-TEN steel

● Look at this long list of recent orders for freight cars built with USS COR-TEN steel. Twenty-two railroads and other car users are represented here. Only four of them are using COR-TEN steel construction for the first time. The rest have had years of experience with equipment made of COR-TEN steel.

For example, the Chesapeake & Ohio, Seaboard Air Line and Union Pacific have been cutting operating and upkeep costs with COR-TEN steel cars for as long as 20 years. Among the first to put this superior steel to work, these three railroads have from time to time, since 1934, added to their original COR-TEN steel equipment and among them have now in service a total of over 32,000 cars of COR-TEN steel construction.

Their experience is typical. In other words, most of the orders now being placed for COR-TEN steel cars are *repeat* orders.

We emphasize this because it highlights the important fact that COR-TEN steel construction is bought again and again. And for good reason. Many years of superior service performance have proved that the high strength and high corrosion resistance of COR-TEN steel pay off in substantially reduced maintenance costs.

Today, many of the major railroads in America have considerable numbers of USS COR-TEN steel cars on their lines. In fact, more than 180,000 of these money-saving cars are now in service.

So satisfactory has been the performance of this equipment that not only here, but in Canada, in South and Central America and even in Africa, among cost-conscious railroad men, COR-TEN steel construction has come to mean "The best in freight car equipment."

UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
NATIONAL TUBE DIVISION, PITTSBURGH • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

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UNITED STATES STEEL

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with the rest of the Nation!

Connecting New England with the West, South and Southwest, the Lehigh & Hudson River Railway forms an important link via Maybrook, N. Y. Modern, powerful Diesel-Electric locomotives maintain a smooth flow of traffic on this essential route.

Sinclair GASCON® Oil in the crankcases of the engines, and Sinclair JET LUBRICANT TM in the traction motor gear cases help maintain this smooth operation.

Both of these fine Sinclair Products for railway Diesel-Electric locomotives have an outstanding record on the Lehigh & Hudson River Railway. Are your locomotives enjoying similar excellence of operation?

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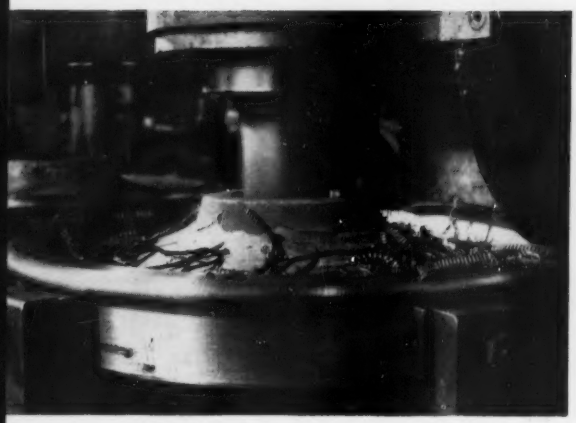
Chicago • Houston

ONE PUNCH



BORING OF A WHEEL HUB. Hub may be rough bored or finished bored to customer specifications on this modern semi-automatic wheel boring mill.

KNOCKOUT!

ONE POWERFUL THRUST of this giant punch and the center of a wheel hub is literally knocked out—a very important step in the forging of USS *Wrought* Steel Wheels.

During the production of a wheel block, the metal is worked in a direction parallel to the axis of the original ingot—a process which ultimately leaves the zone of ingot segregation in the center of the wheel hub. But the relentless punch press takes care of that—and the unwanted zone of segregation goes clattering into the waste pit.

This rolling process, plus the subsequent rolling operation which works the metal in a direction *transverse* to the axis of the ingot, imparts the best metallurgical properties to the finished wheel. All the careful forging, rolling, and controlled-cooling undergone by a USS *Wrought* Steel Wheel serve to intensify the inherent strength, hardness, and ductility of the steel—resulting in a wheel of remarkable soundness and dependability.

But what does the Wrought Steel Wheel do for you?

IT LASTS LONGER . . . USS One-Wear *Wrought* Steel Wheels will average 200,000 to 300,000 miles or more in normal freight car service.

IT COSTS LESS . . . Its far greater life in any given service will reflect a *substantially lower annual cost* than that of the ordinary wheel, even though, initially, the One-Wear *Wrought* Steel Wheel costs a little more than the ordinary type wheel.

REQUIRES LESS MAINTENANCE . . . Rolling on One-Wear *Wrought* Steel Wheels, a car spends more time *in service* and less time on repair sidings, resulting in increased revenue to the railroad. Also, less frequent repair means reduced maintenance and lower labor costs.

SAVES UNSPRUNG WEIGHT . . . Because they are lighter than ordinary wheels, eight *Wrought* Steel Wheels under a 50-ton capacity car will save approximately 1,520 lbs. of unsprung weight, which can be directly converted into payload capacity—or result in savings due to the decreased load. Furthermore, reduced unsprung weight means less pounding on the track system.

Two strategically located complete wheel shops are ready to fill your orders for *Wrought* Steel Wheels: McKees Rocks (Pittsburgh), Pennsylvania shop, serving the East and Southeast, and the Gary, Indiana shop, supplying the Western and Southern Lines.

USS WROUGHT STEEL WHEELS

UNITED STATES STEEL CORPORATION, PITTSBURGH, PA.
TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA.
COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO
UNITED STATES STEEL EXPORT COMPANY, NEW YORK

USS

UNITED STATES STEEL

Railway Officers

Uhrbrock's Resignation—A Correction

In announcing the resignation of E. Frederic Uhrbrock, Jr., as assistant vice-president of the New York, New Haven & Hartford in the August 2 *Railway Age*, page 29, it was incorrectly stated that Mr. Uhrbrock is now connected with the Amoskeag Company. The item was correct with respect to his association with the New York Stock Exchange firm of Vilas & Hickey.

AROOSTOOK VALLEY.—Walter E. Bartlett has been appointed treasurer at Presque Isle, Me., succeeding **H. G. Spencer,** retired.

ATLANTIC & DANVILLE. — William Frederick Poole, track supervisor at South Clarksville, Va., has been promoted to engineer, maintenance of way and structures. Born October 25, 1906, at Linwood, N.C., Mr. Poole entered railroad service in 1919 as section laborer on the Southern. After serving in various capacities on the Southern he resigned as track supervisor in 1948. Following service with the North Carolina Finishing Company and the Wm. A. Smith Contracting Company of Kansas City, he joined the A&D in May 1951 as track supervisor.

CHICAGO, AURORA & ELGIN. — Frank W. Flannigan, vice-president and general manager at Wheaton, Ill., has been elected president and general manager at that point (*Railway Age*, July 19, page 12).

BELT RAILWAY OF CHICAGO. —Emmett C. Harvey has been appointed assistant superintendent at Chicago.

CHICAGO & ILLINOIS MIDLAND.—James E. Dare, executive assistant to president, has been elected executive vice-president at Springfield, Ill. A biography and photograph of Mr. Dare were published in *Railway Age*, March 23, 1953, page 129.

DENVER & RIO GRANDE WESTERN.—Ernest Porter, former commerce ccunsel of the Iowa State Commerce Commission, has been appointed commerce attorney of this road at Denver, to succeed **Herbert M. Boyle,** resigned.

Thor A. Thompson, secretary and assistant to president at Denver, has been named vice-president and secretary there. Mr. Thompson began his railway career in 1910 as a clerk for the Burlington; and was employed by the Northern Pacific from 1911 to 1917, and for a short time in the latter year

Thor A. Thompson

by the St. Louis Southwestern. Mr. Thompson joined the Rio Grande in November 1917 as chief clerk, executive department; was named general auditor in 1937; assistant comptroller in 1946, and assistant to president in 1948. In addition, he has been secretary since October 1949.

GALVESTON WHARVES.—W.H. Sandberg has been appointed general manager at Galveston, Tex.

NORTHWESTERN PACIFIC. — Charles E. Neal has been appointed division engineer at San Rafael, Cal., succeeding **A. L. McHenry,** who has been appointed senior assistant division engineer of the parent Southern Pacific at Dunsmuir, Cal. (*Railway Age*, July 26, page 70).

UNION PACIFIC. — Wilson W. McKee, traveling freight and passenger agent at Des Moines, has been advanced to general agent there to succeed **Eugene R. Field,** resigned.

OBITUARY

Warren S. Painter, 64, auditor of passenger traffic of the **Pennsylvania** at Philadelphia, died August 3 at his home in Beverly, N.J., after a long illness.

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Buy Rails and related Track Accessories from a reliable single source—FOSTER. You save time, money and effort with Foster's large-scale rail warehousing operations. Immediate shipments of any or all your trackage needs—new installations or replacements. We'll match sizes and all specifications to meet your exact requirements on any job. Foster guarantees — all material rigidly inspected before shipment. If, on arrival, it is not entirely satisfactory to you, it is returnable, freight both ways at the L. B. Foster Company's expense.

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MOTION PICTURES PREPARED AND DISTRIBUTED BY UNITED STATES STEEL. 15 pages. 525 William Penn pl., Pittsburgh 30. Free.

Lists timely, educational, and entertaining U.S. Steel motion pictures available on free loan to all recognized groups from USS film distribution centers.

•

GOVERNMENT COMPETITION: PROBLEM AND PERSPECTIVE. Report of the Committee on Economic Policy. 18 pages. Chamber of Commerce of the U.S., Economic Research Department, Washington 6, D.C. Single copies, 50¢; quantity discounts.

States problems of government competition, analyzes some direct and indirect or hidden subsidies, and draws some tentative conclusions.

•

EASY DOES IT. 25 min, sound, color. Available for showings to railroad groups from Brainard Steel division, Sharon Steel Corporation, Griswold st., Warren, Ohio.

Illustrates in detail the "Brainard system" of mechanized tie handling, which employs heavy-duty steel strap, patented seal joints, and patented loading roller hook and spreader-lift rigs to distribute ties singly or in quantities. Operations covered in the film include tie-banding procedure, storage methods, railroad car loading and unloading, single-tie and multiple-unit distribution, and application of anti-checking irons.

BROCHURES

CHOICE INDUSTRIAL SITES IN AMERICA'S GREAT SOUTHEAST and SOUTHWEST. 56 pages, illustrations, maps. Development department, St. Louis-San Francisco Railway, St. Louis 1, Mo. Free.

Contains basic data on industrial sites in 11 cities served by the Frisco. Designates trade areas, transportation, resources, manpower and living conditions available at each city, and includes a photograph and map of each site.

•

THE KERITE STORY; THE FIRST 100 YEARS—1854-1954. 39 pages, illustrations. Kerite Company, Seymour, Conn. Free.

A history of the first hundred years of Kerite.

•

A REVIEW OF RAILWAY OPERATIONS IN 1953, by J. Elmer Monroe. 68 pages. Association of American Railroads, Bureau of Railway Economics, Transportation bldg., Washington 6, D.C. Free.

FOR WAYSIDE FUELING STATIONS

Cutaway view of typical element. The unit shown above measures only 27 in. in height yet contains 6,000 sq. in. of surface area.

Low in cost

... High in efficiency

HERE'S positive, economical protection for your diesel fuel injection system. PUROLATOR Wayside Filters out-perform old style filters by a wide margin—and cost less unit-wise, because of fewer replacements. These Micronic filters provide high flow rates in a minimum of space. The pleated, accordion design of the Micronic filter element provides many more times dirt storage space. The unit shown at left measures only 27 in. in height yet contains 6,000 sq. in. of surface area.

You can pump 230 gals. a minute with minimum pressure drop. This means long life for the unit, low current consumption and less wear and tear on the pumps. Elements can be provided in any size to fit your existing equipment. You owe it to your diesels to get the whole story. *Write, wire or phone* for full particulars.

Distributors to the Railroads

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HIRING THE RIGHT MAN

(*Continued from page 29*)

Application Form 1333: This comprehensive application blank is filled out in duplicate and signed in the presence of the interviewer. The IC form is standard. It contains the Surgeon's Certificate which is filled in when the physical examination is completed. It is here the examining surgeon indicates his findings on whether the applicant is physically qualified for employment with the railroad.

Finger Print Record: The IC has been fingerprinting prospective employees since March 1947. At present an applicant's prints are taken in connection with his application and are turned over to the special agent at division or district headquarters. The agent checks the prints with both local police and federal authorities.

Minor's Release: This section of the manual outlines "legal aspects" of employment, particularly the age limits prescribed by the Fair Labor Standards Act. To protect against unintentional violation, employing officers are required to obtain and keep on file an age certificate which shows the minor has passed the required age for the job he is doing. A sample of the minor's release form used on the IC is included in this section.

Employment Tests: Three tests are used as standard for new job applicants on the IC. All applicants must take a 12-minute intelligence test, known as the Wonderlic Personnel Test, as a general measure of their "I.Q." Applicants for clerical positions are tested with the Minnesota Clerical Test, a two-section, closely timed quiz which measures an individual's qualifications for clerical work. For non-clerical applicants—those entering train service, engine service, stores department, etc., as well as the mechanical department—the Purdue Mechanical Adaptability Test is used. Results of this 15-minute test generally indicate an applicant's knowledge and interest in mechanical things.

As a general rule in testing applicants, the aptitude tests are given first. Thus they serve as "shock tests" and an applicant is usually more relaxed for his subsequent "I.Q." test.

It's System-wide

James R. Sullivan, supervisor of personnel development, and O. W. Motter, supervisor of employment, developed the IC's how-to-do-it manual. The volume has been introduced at each division headquarters where two-day staff meetings were held with employing officers, chief clerks and others who talk to job applicants. At these meetings the manual was studied in detail, actual cases were acted out and the testing technique was tried out on the men themselves.

Before adoption of the new standardized procedure the IC had some general instructions on hiring methods, but, as the personnel department was aware, the degree of thoroughness in applying them varied considerably. The road had operated a centralized employment bureau at Chicago for 11 years, but there was a geographic limit on what this bureau could do. Operating divisions along the railroad needed the benefit of techniques found successful at Chicago, and the "Manual for Interviewers" passes along that information.

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PLATES—sheared & U. M., Inland 4-Way Floor Plate
SHEETS—hot & cold rolled, many types and coatings
TUBING—boiler & mechanical, seamless & welded
STAINLESS—Allegheny plates, sheets, bars, tubes

NEWS PICTURE OF THE YEAR

WIDE WORLD PHOTO

Two lives were lost in this tragic accident which occured recently in the Detroit area

• But the best news of the year is that not a single accident has ever occurred as a result of operation failure at any of the thousands of crossings protected by Western Model 10 Automatic Signals.

Western Model 10 Automatic Signals are generally acknowledged as the finest that money can buy. They are built for 50 years service. *Yet, the installed cost of Western Automatic Signals is only 2% higher than that of the cheapest signal.*

It pays to install Western—choice of over 100 railroads.

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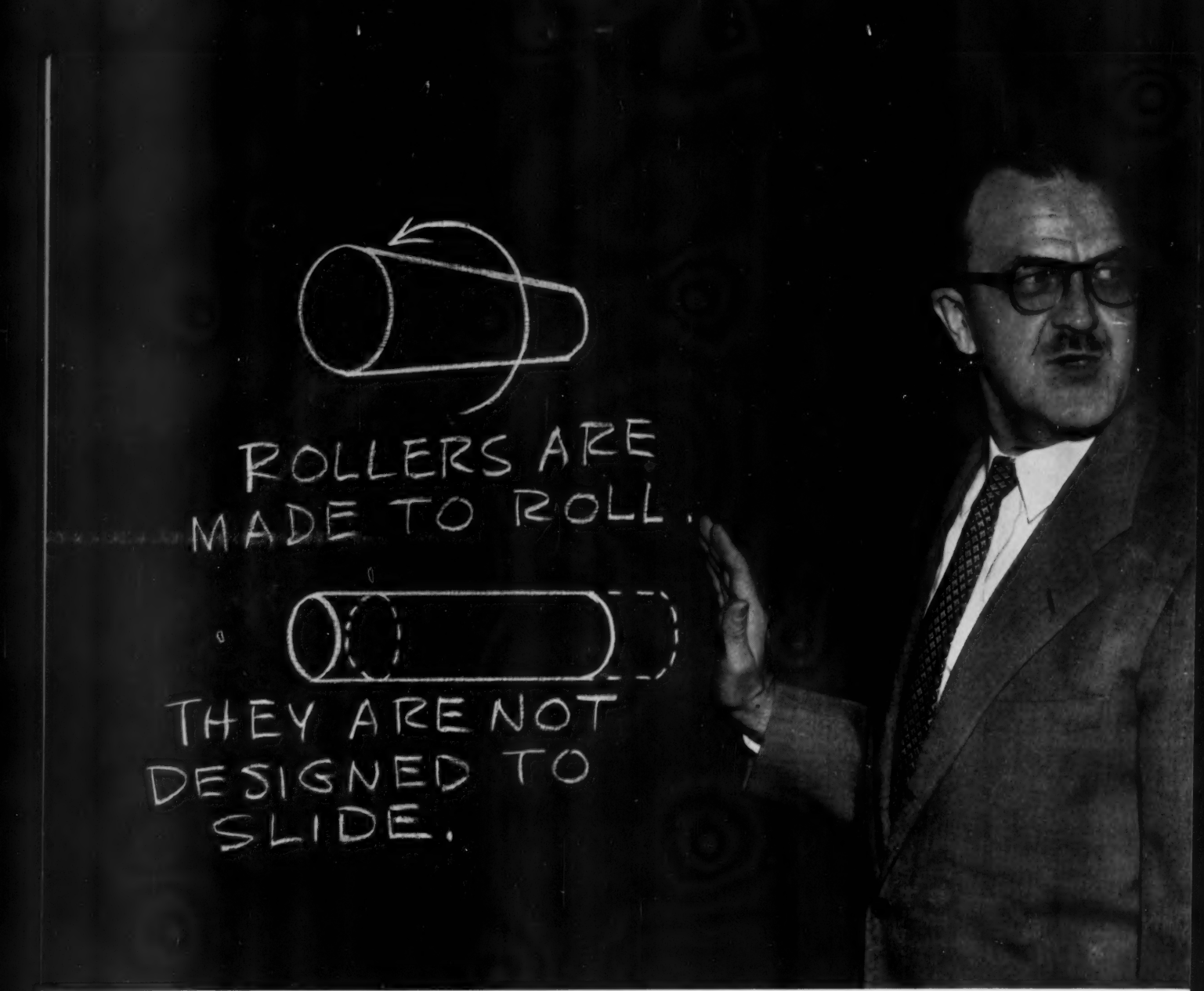


This month Dr. Oscar Horger demonstrates why Timken bearings always roll without lateral motion.

The taper makes TIMKEN® the only journal bearing that delivers what you expect when you buy a roller bearing

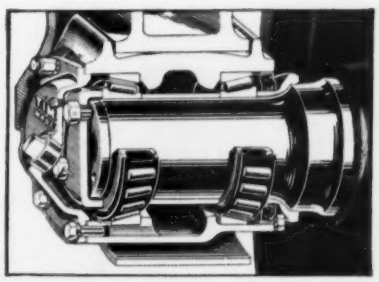
WHAT you really buy roller bearings for is to end the hot box problem, cut costs. The Timken® tapered roller bearing is the *one* bearing you can count on to end the hot box problem and cut operating and maintenance costs to a minimum. It's the taper! Here's why:

1) *No lateral movement within the bearing.* Roller bearings are made to roll—not slide. Under high unit pressures, lateral movement in straight roller bearings causes sliding and scuffing, shortens bearing life. It usually shows up in the form of longitudinal surface sliding marks on the rollers and races. Lateral movement also pumps lubricant through the seal and out of the journal box, draws dirt and water in. And auxiliary thrust devices are needed to take the thrust loads. These thrust devices aren't completely effective and are hard to lubricate with grease.

The taper in Timken bearings prevents lateral movement, enables them to take the thrust. There's no scuffing, no pumping action. This eliminates the hot box problem, means less maintenance, less lubricant and longer bearing life.

2) *Positive roller alignment.* The taper holds ends of rollers snug against the rib where wide area contact keeps rollers properly aligned. There's no skewing of rollers to upset the full line contact and shorten the life of the bearing.

Really *get* what you pay for when you switch to roller bearings to end the hot box problem and cut operating and maintenance costs to a minimum. Get Timken tapered roller bearings. The Timken Roller Bearing Company, Canton 6, Ohio.



THE TAPER MAKES TIMKEN THE BEARING YOU TRUST

TRADE-MARKS REG. U. S. PAT. OFF.

NOT JUST A BALL ○ NOT JUST A ROLLER ⊂⊃ THE TIMKEN TAPERED ROLLER ⊂⊃ BEARING TAKES RADIAL ◯ AND THRUST —◯— LOADS OR ANY COMBINATION